# CONSULTING ASSISTANCE ON ECONOMIC REFORM II

# DISCUSSION PAPERS

The objectives of the Consulting Assistance on Economic Reform (CAER II) project are to contribute to broad-based and sustainable economic growth and to improve the policy reform content of USAID assistance activities that aim to strengthen markets in recipient countries. Services are provided by the Harvard Institute for International Development (HIID) and its subcontractors. It is funded by the U.S. Agency for International Development, Bureau for Global Programs, Field Support and Research, Center for Economic Growth and Agricultural Development, Office of Emerging Markets through Contracts PCE-C-00-95-00015-00 and PCE-Q-00-95-00016-00.

## Fiscal Decentralization and Economic Efficiency: Measurement and Evaluation

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CAER II Discussion Paper No. 38
February 1999



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**Consulting Assistance for Economic Reform (CAER) II Paper**
**Directed by *Harvard Institute for International Development (HIID)***
**Sponsored by USAID Contract PCE-C-00-95-00015-00**

# FISCAL DECENTRALIZATION AND ECONOMIC EFFICIENCY: MEASUREMENT AND EVALUATION

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**FEBRUARY 1999**



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**EXECUTIVE SUMMARY**

This study is a follow-on to work begun earlier in the CAER II project on measuring and assessing the effect of fiscal decentralization (FD) in developing countries. In CAER II Discussion Paper #3 (*Guess, Loehr and Martinez, Fiscal Decentralization: A Methodology for Case Studies, March 1997)* a general format for doing case studies was created. That paper did not include any case studies. It was comprehensive, dealing with all of the most important economic factors affecting the fiscal decentralization process. This paper does two things. First, it recommends an approach to assessing the economic efficiency impacts of fiscal decentralization. Second, it does a brief case study of the Philippines to illustrate the method.

The methods recommended recognize the difficulty of doing economic analysis in developing countries. Data are scarce and other information incomplete. Nevertheless, assessment of what are basically economic factors requires that observations and analysis follow the logic of economic theory, but purely quantitative methods cannot be used exclusively. Judgment is required. Just as economic theory organizes empirical investigation, it also organizes the way we think about problems. If information about those problems is judgmental and anecdotal, theory organizes whatever the available information is. It is normal in developing countries (indeed, almost everywhere) that information is incomplete. In the end, economic theory can be used much as rules of evidence are used in a court case, to build a picture of "the preponderance of the evidence," even where some of the evidence is anecdotal.

The objectives of this project are:

- to recommend methods for evaluating changes in economic efficiency associated with fiscal decentralization;
- to recommend measures of efficiency for important activities;
- to provide suggestions about a few key dimensions related to efficiency changes so that evaluations can be done with a minimum expenditure of resources;
- to recommend measurement and monitoring methods that AID and other donors might find useful in developing and evaluating FD projects;
- to demonstrate how these methods can be used to evaluate FD in comparative analysis. For this purpose we perform a brief case study of fiscal decentralization in the Philippines; and
- to build on the work begun in CAER II, Discussion Paper #3, thereby creating an increasingly comprehensive treatment for the evaluation of FD.

The main effect of FD is to provide improved resource allocation and therefore improved economic efficiency. Improved efficiency is the main positive economic factor expected to come from FD. Efficiency gains rest on the presumption that local governments are much better in identifying and fulfilling the needs of households, since they are closer to them, and in mobilizing and using local resources to pay for goods and services having purely local impacts. Improved efficiency is defined as getting greater consumer (taxpayer) welfare from fixed resources. Not all gains in consumer welfare can be measured as increases in output. When FD is successful, resources have been reallocated so that marginal costs of publicly provided goods and services more closely match marginal benefits. Relative allocation questions come into play.

We recommend that attention be focused on three dimensions of economic efficiency:

- Production efficiency refers to the cost at which goods and services are produced. Production efficiency is improved if resources are reallocated within expenditure categories to get the most output from whatever resources are available. There are three important dimensions to assessing production efficiency. First, costs in providing local services should be compared to the costs of a "standard package" of services. Second, structural changes associated with likely production efficiency changes should be detailed. Third, local capabilities to provide services should be assessed.

- Allocative efficiency matches public spending with consumer preferences. Allocative efficiency changes as resources are reallocated between expenditure categories to better match the needs of local constituencies. One should be able to observe changes in the mix of publicly provided goods and services along with FD. There are three dimensions that we recommend for evaluation. First, there must be some means for local officials to detect what local demand is. Normally this involves some form of democratic government, though other arrangements may work too. Second, goods and services supplied by local government units (LGUs) should be financed in significant part by local taxes and LGUs should confront a "hard" budget constraint. Third, local government decision-maker should be accountable to their constituents.

- Fiscal efficiency deals with the ways in which LGUs are financed. Three dimensions are of importance. First, local taxes should connect taxpayers with services they receive as much as possible. Second, systems of grants and transfers from the central government should provide adequate finance without overly distorting local preferences. Third, the system of finance for LGUs should not threaten national macroeconomic stability.

A case study of fiscal decentralization in the Philippines was conducted in late 1998 to illustrate the application of the case study methods suggested here. The Philippines case is particularly useful for illustrative purposes. The passage in 1991 of a new Local Government Code ("the Code") represents a major shift in local governance in the Philippines. The Code is aimed at providing the framework in support of increased local autonomy. Because the Code has been fully in force since 1993, the Philippines case represents a fairly neat "before and after" picture.

Data and institutional arrangements describing fiscal decentralization in the Philippines are presented in Section 6. This sets the stage for examining the three kinds of efficiency changes. Production efficiency in the Philippines has probably been improved as a result of fiscal decentralization. However, efficiency improvements have probably been modest since LGUs only spend about 3.7 percent of GDP (in 1997) compared to about 1.9 percent in the immediate pre-Code period. Cost comparisons seem to favor LGUs over national agencies. Structural changes, with a few exceptions, follow guidelines offered by economic theory. Lack of local capability has not been a major constraint though the record there is uneven. Capabilities vary considerably from one LGU to the next. Innovation has extended the productivity of revenue. Improvements in production efficiency could probably be gained by devolving additional services to local governments such as education and law enforcement.

Allocative efficiency has probably improved, but any improvements have been slight. The mix of expenditures has changed since 1992, and LGUs' preferences are better reflected in expenditure patterns. Changes in the expenditure mix have been very small. Changes in expenditure patterns have favored education, housing and general public services. Relatively, expenditures have shifted away from social welfare and agriculture-related expenditures. There seems to have been a shift away from health care spending too, but there are questions whether this reflects public preferences or an idiosyncrasy of the Philippine system.

Fiscal efficiency is probably adequate but could be improved upon. Local taxes already exist that would make the correspondence between taxation and the economic activity that is supported by local expenditures. But local taxes are ineffective in making this connection. In important cases (particularly with the property tax) local revenue generation is an illusion. Most LGUs spend more administering taxes than they collect in revenue. Macroeconomic stability does not seem threatened at all by the form of fiscal decentralization practiced in the Philippines. LGUs cannot run operating deficits and are extremely limited in their ability to borrow. The formula granting revenues to local governments has some defects, but over all does a reasonable job.

Problems for fiscal decentralization in the Philippines include:

- Greater attention to equitable and adequate pay, and to the career development paths of employees would probably yield improvements in production efficiency by assuring LGUs of the skills that they need.
- National agencies have not fully yielded responsibility to LGUs for devolved services. Effort should be made to bring national agencies on board as supporters of LGU activities.
- An important problem is related to the shared resources that are supposed to go to LGUs. Inflation cuts into the shared revenues before they are delivered, shared revenue from natural resource exploitation is rarely forthcoming, and administrative decisions can cut the shared revenue to meet national objectives. Commitment should be made to deliver to LGUs the revenue that is mandated for them by the Code.
- Many LGUs are not able to meet devolved expenditure responsibilities and create new expenditures out of the shared revenue. Provinces are particularly hard pressed to meet expenditure responsibilities.
- Very few LGUs have exploited their own sources of revenue. Yet, all face hard budget constraints. Ultimately, allocative efficiency will be improved for those jurisdictions that improve upon revenue generation through local taxes such as the property and business taxes.

## SECTION 1: INTRODUCTION

CAER II Discussion Paper #3 (*Guess, Loehr and Martinez, Fiscal Decentralization: A Methodology for Case Studies, March 1997)* produced a general format for doing case studies. The study surveyed the literature on fiscal decentralization (FD), identified the main benefits and costs normally associated with FD and made recommendations about how evaluative case studies might be done. It did not do case studies, nor did it provide specific indices or measurements of dimensions of fiscal decentralization (FD). This study is the natural follow-up to that paper with work on measurement issues. To the extent possible this study will follow the guidelines set by CAER II, Discussion Paper #3.

Discussion Paper #3 made a few important observations about evaluating FD. First, economic theory provides little guidance as to the relationship between FD, economic welfare and economic growth. There are positive and negative factors but whether countries are better off with FD is an empirical question. Second, the process by which FD occurs will be constrained by many institutional and historical factors. To evaluate FD one must examine the process within the context of the country in question, and not all of that context is amenable to quantification. Third, judgement is required to determine if there are net benefits from FD. Economic theory can help in the judgement, but it cannot make the judgement automatic. Fourth, data and measurement can help support judgements about the effect of FD. What can be quantified should be.

Unfortunately, in most developing countries data are scarce and few quantitative measures are available. But non-quantitative investigation is not futile. Just as economic theory organizes empirical investigation, it also organizes the way we think about problems. If information about those problems is judgmental and anecdotal, theory organizes whatever the available information is. It is normal in developing countries (indeed, almost everywhere) that information is incomplete. In the end, economic theory can be used much like rules of evidence are used in a court case, to build a picture of "the preponderance of the evidence," even where some of the evidence is anecdotal.

The main economic effect expected from FD is an improvement in efficiency. Efficiency should be amenable to measurement. If it can be measured then judgements about the effect of FD will be simplified. As fiscal decision-making and project management are passed to lower levels of government, resources are expected to be reallocated to better match the tastes and preferences of local populations. The mix of publicly provided goods and services can change. Also, under the right conditions and for each kind of activity, local populations will attempt to maximize what they get out of given resources.

It is often not clear exactly what is meant by "efficiency." The literature on FD often fails to define what is meant by the term, or uses different efficiency concepts. Different efficiency concepts are often combined and confused. We define as efficient a situation where no reallocation of resources can improve upon general economic welfare. An efficient condition maximizes output for a given cost. Here we will focus on efficiency improvements of three kinds[1]:

[1]The categorization here follows Campbell, et al.

- Production efficiency refers to the cost at which specific goods and services are produced. If FD results in production efficiency improvements it is because resources are reallocated within expenditure categories to get the most output from whatever resources are available. One should be able to examine specific expenditure categories to determine whether "more" output is being gained relative to the resources employed. This measurement should be relatively straightforward. One can look at categories such as schooling, medical care, etc and come up with performance indicators.
- Allocative efficiency matches public spending with consumer preferences. If FD affects allocative efficiency it is because resources are reallocated between expenditure categories to better match the needs of local constituencies. Local citizens may decide that their tastes are better served by shifting resources from activities of lower marginal value to those with higher value. Measurement of this is not so straightforward since we have no way to measure the marginal preferences of the population. For example, if FD yields one more unit of health and a unit less of education, is there an efficiency improvement?
- Fiscal efficiency deals with the ways in which LGUs are financed. Normally, some tax and revenue autonomy is given to LGUs, though a large part of LGU expenditures are usually covered by transfers from the central government. There are three components. First, are local taxes "good" taxes? That is, do they tax the intended parties and link the payment of taxes with the targets of expenditures. Second, the intergovernmental grant structure should adjust for externalities, without distorting local preferences. Third, local budgets should not threaten national macroeconomic stability. Anything less than meeting these objectives reduces fiscal efficiency.

Measuring production efficiency is what is traditionally done. Performance indicators can be created that measure output per unit of input. Sometimes these indices are indicative of performance, for example where the output is some kind of service such as education or health. However, traditional measures may fail to reflect efficiency gains within categories. For example, suppose that as a result of decentralized decision making a local community decides to spend relatively more on a given activity even if the additional goods or services come at increasing costs. The traditional measures would indicate decreased efficiency (higher cost per unit) even though the local community has determined that higher costs are worth incurring given the community's tastes and preferences. Traditional measures would confuse production inefficiency with allocative efficiency. Non-traditional measures should distinguish between the costs of additional goods and services versus costs of existing ones. In any event, these measures alone do not reflect the efficiency gains that local governments may get through choosing a different mix of goods and services that suits their own preferences better than the mix determined by a central government.

Measuring allocative efficiency changes raises a number of interesting problems. The most interesting is that shifts between categories reflect decisions to match costs with tastes and preferences, where the latter are not observable directly. Fiscal performance is often measured by inputs rather than by outputs. How much money is allocated and spent often substitutes for how much output is gotten from the expenditure. This is entirely inappropriate when trying to assess production efficiency. Within-categories measures of output can be and should be devised. But measures of inputs may tell us something about decisions to reallocate resources among categories. Therefore, measurements of efficiency gains from reallocation of resources between categories may be helped by observing inputs. How measures of inputs and outputs interact in an overall assessment becomes an important issue. These measures would be particularly useful if the measurement techniques could be applied in comparative case studies.

## SECTION 2: OBJECTIVES

The objectives of this project are:

- to recommend methods for evaluating changes in efficiency associated with fiscal decentralization;
- to recommend specific measures of efficiency for important activities;
- to provide suggestions about a few key dimensions related to efficiency changes so that evaluations can be done with a minimum expenditure of resources;
- to demonstrate how these methods can be used to evaluate FD in comparative analysis. For this purpose we perform a brief case study of fiscal decentralization in the Philippines; and
- to build on the work begun in CAER II, Discussion Paper #3, thereby creating an increasingly comprehensive treatment for the evaluation of FD.

Practical limitations are imposed by the time available for the project when contrasted against the enormous volume of literature on the subject of fiscal decentralization. Our approach is to concentrate on the methodological guidance that the literature provides rather than attempting a comprehensive "survey of the literature." Our main objective is to specify methodological steps for carrying out the case study evaluations. A secondary objective is to recommend measurement and monitoring methods that USAID and other donors might find useful in developing and evaluating FD projects. In either case we are after pragmatic, practical steps that can be taken, and/or readily available observations that can be used to evaluate FD. We recognize the short shrift that we may give to theoretical refinements, but are driven to come up with recommendations that are useful to practitioners rather than satisfy all academic interests.

Observations are:

- Relevant data are so scarce and so imprecise that formal hypothesis testing would be well beyond the scope of this work. Furthermore, fiscal decentralization is so multidimensional that specification of a formal hypothesis for statistical testing would require stepping down from a view of the general picture, to a level which provides only a narrow slice of the panorama. Our objective is to shed light on how to measure simple, standard relationships, given the information that is normally at hand.
- The experience with FD in many countries, and particularly in Eastern Europe, is new and most impacts of FD are indirect and will occur far in the future. Thus, one cannot relate empirically the ultimate impact of FD with recent changes in FD. The most one can hope for is to relate changes in FD with changes in fiscal behavior and other macroeconomic variables,

and to imply what future conditions will result. One can also state what the likely long run impacts are of recent FD maneuvers, even though they are not yet observable.[2]

- Several of the dimensions of efficiency that we would like to measure are not amenable to the creation of normal statistical indices. Indices may be appropriate for measures of production efficiency, but direct measures of allocative efficiency would require measures of interpersonal preferences. The latter are not available. Some indirect approach will be necessary. Indicators of allocative efficiency revolve around whether the conditions and incentives promote allocative efficiency, rather than measuring allocative efficiency directly. For these kinds of indicators there are no easy "yes" or "no" answers available. Some judgement is inevitable.
- Since few empirical "indices" are available our focus often falls on factors that have a high probability of affecting the efficiency outcome of FD. No single factor will determine the outcome of FD, but a series of probable outcomes can be described. In this way reasonable judgements about efficiency changes can be formed.
- Equity is not a direct concern of this paper. Local governmental units (LGUs) if left to their own devices would tend to spend less on income redistribution than would a central government, which is better able to internalize national equity goals. Considerations of equity are normally central government functions even though spending to achieve equity objectives may be done through LGUs.

Concern with economic growth and efficiency can be misplaced and/or overemphasized. Economic growth is so strongly affected by factors other than FD that any effect FD has can be swamped by the others. Surely, one can link FD to efficiency and growth in a theoretical way, but a concern with growth per se does not seem to have been the main factor motivating USAID and other donors. Indeed, the empirical evidence that does exist shows no relationship between FD and economic growth.[3] Furthermore, the main arguments of fiscal decentralization seem to be political rather than economic (see Bahl and Linn, 1992; Pineda Pablos, 1997). What does seem to have motivated donors is a concern for improving participatory democracy or something like "economic development." Economic development, while difficult to define, generally includes economic growth, but it may include other changes as well (see Loehr and Powelson, 1981). Economic development may be thought of as a generalized economic improvement in a society, which may occur even in the absence of economic growth. Often, what is sought by proponents of FD is an economic "improvement," even if there is no direct, measurable impact on economic growth. An economic improvement can be defined as a change that leaves someone better off, without implying a deterioration in the well-being of any one else. Therefore, a reallocation of resources that better matches the preferences of the people affected may be an "improvement," even if the amount of resources available is unchanged. Nevertheless, one of the main

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[2] See Bird, Ebel and Wallich (1995), for a quite complete discussion of the early experience with decentralization in Eastern Europe, including Russia and other FSU countries.

[3] Phillips and Woller (1997) related statistically growth and FD in 39 countries, while controlling for variables other than FD which are normally thought to influence growth. They found that the relationship between growth and FD was an inverse one, though the relationship was weak. In a sub-sample of 23 developing countries no relationship at all was found. Zhang and Zou (1996) found that in China, FD and growth were negatively correlated. Also see Tanzi (1995).

improvements expected of FD is an increase in efficiency in the use of fiscal resources such that "more" is available from "less." More and better public services may be provided with an equal, or even a lower amount of fiscal resources. In this paper we focus on economic efficiency. We do not mean to imply that the other changes expected of successful FD are unimportant.

## SECTION 3: METHODOLOGY

Design of FD policies requires considerable judgement, which is guided only partially by economic theory.[4] Economic theory provides no straightforward guide to what the relationships are between FD, growth and economic efficiency. Without theoretical guidance, no comprehensive empirical tests can be done, and indeed, none exist. Lack of empirical tests is also attributable to the evolutionary nature of FD and to the power of intervening variables that simultaneously affect economic growth and efficiency. Furthermore, FD implies institutional changes which affect a great number of economic/political factors, but which have their impact over a prolonged period. During that period, other factors that have a more immediate impact on growth and development are likely to occur. Changes in investment, international market conditions, major changes in political regime, all intervene to obscure the unique impact of FD.

The main economic reason for decentralization is to improve efficiency. Improvements in efficiency require decentralization of both expenditures and taxation, but the reasons for decentralizing expenditures and taxes differ, so no match between revenues and expenses is guaranteed. This implies some regional differences in financing ability and a need for a system of intergovernmental transfers. The latter is also implied by the existence of inter-jurisdictional spillovers and by notions of equity at the federal level. Taxation at the local level also implies some possibilities for distortions in resource allocation, particularly among mobile resources (most importantly capital) and for tax competition among local jurisdictions. For a full review see Broadway, Roberts and Shah (1994) and Guess, Loehr and Martinez (1997). In general, to obtain the benefits of increased efficiency from FD, one must also deal with problems of regional inequality and inter-regional competition. These effects are simultaneous.

In no country is the process of FD "finished." Rather, the forms that FD takes, and its evolution in each country, are conditioned by the effects that FD has had in the past and by the evolution of economic and political forces in each country where FD has been a major concern. History provides many constraints. What is important is how changes in FD affect changes in economic variables associated with economic development. As has been explained by Peterson (1996), it is the process by which FD affects other variables that is important to understand. This is particularly important for Eastern Europe. FD in Eastern Europe is so new that few of the final effects that FD is expected to have can be observed. It is still too soon to "know" what FD has wrought. Therefore, as we explore the relationships called for in this project's scope of work, we will be exploring the evolution of FD and the way that that evolution has been linked to changes in economic efficiency.

[4]For a description of the kinds of judgements required see Broadway, Roberts and Shah (1994). pp. 29-35.

In what follows we will discuss and define terms as required, though most of that was already done in Discussion Paper #3. Separate discussions will be conducted for each of the three kinds of efficiency. Measurements or indicators of likely changes in efficiency will be discussed. Measurement suggestions will be related to the materials found in Discussion Paper #3. Finally, a limited case study will be done to illustrate how to go about evaluating the likely efficiency impacts of FD. The case study will examine fiscal decentralization in the Philippines, and the details of that case follow the general discussion.

Throughout the discussion we will be using the terms "subnational governments," "local governments" and "tiers of government" somewhat interchangeably. In general we will use the term "LGU" as a short-hand for local governmental unit. At a conceptual level this works. Until we enter specific case studies, where these terms get defined by specific situations, it is not clear exactly what a subnational government is. Levels of government can take many forms, as for example in federal systems or decentralized unitary governments. Government can exist on a multi-level hierarchy following pre-determined rules, rather than following some "superior authority" (see Bird, 1994, and Ostrum, Schraeder and Wynne, 1993). Such a hierarchy may be desirable to prevent free-riding and therefore improve efficiency.

## SECTION 4: EFFICIENCY

The main effect of FD is to provide improved resource allocation and therefore improved efficiency. Improved efficiency is the main positive economic factor to come from FD. This is the classic effect described by Musgrave (1959) and by Oates (1972) and is the main impact sought by FD.[5] Efficiency gains rest on the presumption that local governments are much better in identifying and fulfilling the needs of households, since they are closer to them, and in mobilizing and using local resources to pay for goods and services having purely local impacts (Peterson, 1996). When locally provided goods and services "spill over" to the wider community, the case for FD weakens (Bird, 1994) but is not destroyed unless benefits spill over evenly to the entire nation.

Improved efficiency is defined as getting greater consumer (taxpayer) welfare from fixed resources. If we get greater output from given resources, then economic growth is implied by successful FD and associated resource reallocation. However, not all gains in consumer welfare can be measured as increases in output. Because the contribution of the public sector to national output is measured by the cost of public expenditures, many gains in welfare escape conventional measures of output growth. Using fiscal resources in a way that households find more useful and beneficial increases welfare, but not necessarily measured output. When FD is successful, resources have been reallocated so that marginal costs of publicly provided goods and services more closely match marginal benefits.

As we indicated above there are three dimensions of efficiency that concern us:

[5] See also Breton and Scott (1978) and the survey of reasons for fiscal decentralization in Broadway, Roberts and Shah (1994). For a general review of the international experience see Owens and Panella (1991) and Bahl and Linn (1992).

- Production efficiency
- Allocative efficiency
- Fiscal efficiency

In practice, measures of production efficiency seem most important for evaluating FD, and production efficiency is the thing most often measured. The most common strategy for central governments in the early stages of FD is to transfer the responsibilities for local capital investment and infrastructure to LGUs. Later, non-infrastructure responsibilities may be transferred in areas such as education, health, sanitation, police. In cases of non-infrastructure, the central government usually constrains LGU behavior such that little room for reallocation of resources among expenditure categories is possible. The fact that FD normally occurs gradually over a long time implies that there are few clear "before and after" situations. Measuring anything having to do with FD is inherently disturbed by other intervening variables. Also, it is rare for central governments to transfer significant independent taxing authority to LGUs. Without independent means of taxation, few of the benefits of improved allocative efficiency are likely. LGUs are normally very constrained in both expenditures and revenue-raising even after there has been some movement toward fiscal decentralization. Concerns with macroeconomic stability are usually misplaced. In most FD projects so little independent taxation authority is transferred to LGUs that overall national spending is little affected by it. Macro stability concerns are often voiced by those who are opposed to FD in any event.

### 4.1 Production efficiency

Production efficiency refers to the cost at which specific goods and services are produced. When costs of a given good or service are minimized, production efficiency is maximized. Production efficiency improvements occur because resources are reallocated within expenditure categories to get the most output from whatever resources are available. In economists' terms, concern with production efficiency is concern that the public expenditures system is producing on the "production possibilities frontier." There is no focus on the production mix but only on the total amount of a specific item produced. Ideally, production efficiency can be measured by observing the cost at which specific goods and services are produced. One should be able to examine specific expenditure categories to determine whether "more" output is being gained relative to the resources employed. We recommend three observations that we believe to be complementary.

First, cost comparisons should be made for the provision of standard packages of goods and services. This is not always possible and never easy. Usually, a switch from central government control to more FD is accompanied by changes in the package of goods and services that the public sector is to provide.

Second, structural changes likely to affect production costs should be identified and should be combined with evidence that they indeed have affected production costs. In some cases, especially in the early stages of FD we may have little more than observations of structural changes to indicate what efficiency gains are likely in future. The main structural changes that occur are those having to do with assignments of expenditure responsibilities and assignments of revenue and/or tax authority. It is important that as structural changes occur, incentives to be efficient persist.

Third, capabilities of LGUs vary widely from country to country and within countries. Without adequate local capacity to carry out expenditure responsibilities, it is naive to think that shifting expenditures to the local level can improve much on production efficiency.

There are advantages in combining these kinds of observations. Changes in production costs are the ultimate measure of production efficiency, but in many cases the FD process will be incomplete. The effects of FD on production costs will only be felt in the future. In early stages we may be only able to observe structural changes. Furthermore, the process of FD carries with it many implications for economic development other than ones of efficiency. This was emphasized in Discussion Paper #3. Observations of structural changes may tell us about the probability of gains in production efficiency, but they tell us a lot about other changes as well.

### 4.1.1 Production efficiency: cost comparisons

In making cost comparisons it is useful to distinguish between standard goods and services that will be provided in any event but which may be provided by either the central government or by the LGU, and non-standard or idiosyncratic services that are probably only supplied by one level of government or the other. Standard services such as provision of roads, health care, water, education and so forth, will be provided to some degree in any event by either the central government or a LGU. Even where the standard service is provided by the LGU, there are usually mandates from the central government that give the LGU little choice to alter the service provision. These standard items usually receive most of their financing from the central government, giving the LGU little incentive to change production techniques. Furthermore, standards of comparison can usually be constructed as these standard services are shifted from the central government to LGUs (or the reverse). Idiosyncratic goods and services provided primarily by LGUs are more likely to be financed by LGUs themselves and more under their control. For example, local garbage collection, some environmental controls, provision of parks and open space, enforcement of building codes and so forth, are often provided at the option of LGUs. Standards for comparing costs for these services with what costs would be if provided by central governments may be impossible because there is no standard against which costs can be compared. Central governments may not provide these services at all. Fortunately, most of the expenditure responsibilities taken on by LGUs in the course of FD are of the standard kinds, so a focus on them will cover most of the impacts of FD.

"Before and after" comparisons of standard packages of goods and services are not always possible. LGUs may provide the same general kinds of services that had been provided by the central government before decentralization, but they may choose to do so in different ways. For example, an LGU may choose to provide classrooms that are less substantial as buildings but just as functional as places to learn. LGUs may provide roads, but ones that are narrower or carry lighter loads that those provided by the central government. In either case, direct cost comparisons are difficult. Furthermore, different localities may face different production conditions, which may make cost comparisons seem to reflect positions of inefficiency for some locations when in fact this is not the case. Nevertheless, direct cost comparisons form the primary basis for determining whether or not FD has been accompanied by production efficiencies.

Full evaluations of the performance of LGUs may mix outcome indicators with efficiency indicators. Outcome indicators are designed to measure whether or not a particular program or service is meeting its goals. Their focus is primarily on quality and effectiveness. They measure the extent to which a need or goal is or is not met. Examples of outcome indicators might include number of crimes per capita, number of interruptions in water service, percentage of streets meeting cleanliness criteria, etc. Outcome indicators may be useful to local government officials, but they also require a great deal of data collection, sometimes requiring special surveys or evaluations. Outcome indictors are costly to track and in most developing country settings they are impractical to attempt.

Efficiency indicators are our main focus here. They measure the cost for a particular program or service in terms of money spent or personnel required, usually in the form of a ratio of cost per unit output or cost per unit outcome. Examples of efficiency measures are:

- Cost per tons of solid waste collected
- Cost per million liters of water treated
- Employee hour for a particular type of road repair
- Dollar cost for material and equipment used in a particular service call
- Operating cost per capita for police protection
- Teacher cost per student
- Cost per hospital bed per capita

The following are some examples of efficiency indices for administration and general government, water supply, wastewater and sewerage, and solid waste management:

Administration and General Government

- Number of employees per capita
- Percentage administration cost to total costs
- Number of people educated per outreach employee
- Cost per outreach program
- Average number of employee hours per complaint
- Average number of working days to compile monthly financial statements
- Average number of working days to compile quarterly reports
- Average number of working days to compile annual budget

Water Supply

- Cost per million liters pumped, treated, distributed, contained.

Wastewater and sewerage treatment

- Percentage of repairs completed within goal time
- Wastewater treatment cost per 1,000 liters treated
- Sludge disposal or use cost/dry ton

Solid Waste Management

- Cost per ton of solid waste collected
- Cost per customer served
- Tons of solid waste collected per employee
- Tons of solid waste collected per vehicle

These listings of actual indicators are intended to help clarify the concept of efficiency measurement. It should be noted that collection of data needed for these indicators can be very time consuming and costly. Clearly, a researcher attempting to evaluate the production efficiency effects of FD should select only those indicators which are most useful and appropriate and focus on those indicators which require data that are relatively easy to obtain. Tracking and analyzing a few key indicators can shed considerable light on efficiency. However, in each actual case study, efficiency indicators must be devised to fit the case at hand. In each case of FD in developing countries LGUs will be assigned tasks which differ from country to country (and even within countries). Thus, one cannot invent a list of efficiency indicators *a priori* that apply to all FD cases in all countries at all times.

In some cases one may want to perform an evaluation of FD and local government performance that goes beyond a simple evaluation of production efficiency. Some researchers may have an interest in other indicators of input use, outputs of different kinds, outcomes and other factors. The Governmental Accounting Standards Board (GASB) has published a series of research reports on performance measurement. (See: Service Efforts and Accomplishments (SEA) Reporting: Its Time Has Come, 1990) The GASB emphasizes the role of performance measurement in public administration. The following quote from the publication sums up why: "SEA information is needed for setting goals and objectives, planning program activities to accomplish these goals and objectives, allocating resources to these programs, monitoring and evaluating the results to determine if they are making progress in achieving the established goals and objectives, and modifying program plans to enhance performance." The Government Finance Officers Association (GFOA) also focused its resources on performance measurement. Its research (Performance Measurement: The Link to Effective Government, and The Use of Performance Measures in City and County Budgets, both 1994) emphasizes that measuring the results and impact of services and programs is very important as local governments function in difficult economic and fiscal conditions.

### 4.1.2 Production efficiency: structural changes

Structural changes for efficiency gains under FD play a key role in the overall outcome of FD. The main function of Discussion Paper #3 was to discuss many of the structural changes accompanying FD, so it is here where the two papers overlap. Certain structural changes affect the probability that efficiency gains will be forthcoming. The first structural requirement is that the expenditures assigned to LGUs be the appropriate ones. Expenditure assignments to different levels of government should be guided by the so-called decentralization theorem. That is, expenditure responsibility should be assigned to the lowest level of government, which is capable of internalizing all spillovers. Thus, public services which have primarily local impacts with few spillovers outside the jurisdiction where they are provided (e.g., roads, law and order, water, health) should be provided by local-level government. By contrast, public services that benefit everyone (i.e., where spillovers are broadly based) should be provided by the central government (e.g., national defense, establishment of a legal system). Public services which have significant spillovers beyond local political jurisdictions should be a shared responsibility between LGUs and the central government. Thus, one of the first observations made should revolve around whether expenditure assignments reflect the decentralization theorem. If they do not there is no reason to expect efficiency gains.

Second, it must be clear which expenditure responsibilities are assigned to local government and which are to be shared. It must also be clear who is responsible. Though this may sound obvious, in many cases it is not. Often, lengthy disputes arise over which level of government has responsibility for which expenditures. As these disputes occur, services suffer. Relying on cooperation between different layers of government blurs responsibility. For example, allocating responsibility for different kinds of roads to several different levels of local government makes it difficult to observe who is in charge. Also, there may be a cost in giving too many responsibilities to one level of government (Cremer and Seabright, 1994). Each responsibility would carry small weight in the decisions of voters and make it easier to local politicians to conduct them for private rather than public interests. Negative or unclear answers to the following list of questions throws doubt on the achievement of efficiency gains (these questions were raised Discussion Paper #3):

- Is there an explicit assignment of expenditure responsibilities in the law? Where? In the Constitution (not very desirable), in the central (federal) government budget law, in a local government budget law, or in any other document? The more permanent the expenditure responsibilities are, the better.
- The clearer the expenditure responsibilities are the better. Have the expenditure responsibilities been stable in the recent past or are they constantly changing?
- What is the assignment of capital expenditure responsibilities? Do LGUs invest in infrastructure for which they have responsibility in operation and maintenance? Matching investment responsibility with the beneficiaries of the investment and with O&M responsibility is a positive factor.
- Are the expenditure responsibilities shared with other levels of government clear and are the revenues coming from other levels reliable?

Third, incentives and tools must be available for LGUs to seek efficiencies. Some of the important structural changes that should be observed are:

- Competition in the provision of goods and services. That is, does the LGU put itself in a position to compete with alternate suppliers of goods and services? Is there competition between public and private suppliers?

- Is contracting out available to LGUs as a means to control costs?
- Is there community supervision of local infrastructure projects or are LGUs accountable only to themselves?
- Is there a reduction in duplication of service provision?
- Are there changes in personnel rules on hiring and firing which allow LGUs to rationalize staffing?

### 4.1.3 Production efficiency: local capabilities

Fiscal management, technical and budgeting capabilities need be in place at the local level which are adequate to handle the tasks at hand. This seems obvious, but is sometimes overlooked and occasionally obscured by political bargaining. In some ways this seems like a secondary concern because the lack of capacity can be remedied with time. Lack of technical capacity can be remedied by appropriate career development schemes, training and technical assistance. When these are needed, expenditure responsibilities must be shifted to LGUs only as capabilities develop. In the meantime contracting out is an option. Key to developing and using local capabilities is accountability (see Campbell, et al., p.7).

Opportunities for making political commitments to fiscal decentralization for most countries usually occur at times of major systemic or regime changes. For example, these opportunities occurred in the Philippines after Marcos; in El Salvador at the end of its civil war; in Argentina at the end of prolonged dictatorship; in South Africa after establishment of majority rule; and in Eastern Europe after the fall of communism. The "window of opportunity" for FD may be open only briefly. At these times capabilities of local governments may be particularly weak because of the centralized control preceding the opening of the "window." Lack of local capabilities is often used by opponents of fiscal decentralization as a reason why FD should not occur, but delaying FD may insure that capabilities are never built. Program designers must recognize that weaknesses exist, rely on existing strengths to get FD going and to build in facilities for capacity growth. Some of the questions of relevance are:

- Are there adequate local resources, particularly human resources? Do skilled people exist locally?
- Is the mix of skills available to the LGU appropriate? In many local jurisdictions the ratio of skilled to unskilled workers is too low to provide services of high quality.
- What is the pace of FD that matches the expected development of local skills?
- Are budget management practices and procedures in place?
- Are there incentives to spend efficiently?

## 4.2 Allocative efficiency

Allocative efficiency matches public spending with consumer preferences. If FD affects allocative efficiency it is because resources are reallocated between expenditure categories to better match the needs of local constituencies. If FD works to improve upon allocative efficiency it will shift expenditures in favor of those goods and services that are most valued by the local populace. The mix of expenditures becomes the main focus. In economic terms, concern with allocative efficiency is concern that the public expenditures system moves along the production possibilities frontier to produce the mix of goods and services that most satisfies taxpayers/citizens. If the mix of public expenditures is to be adjusted to best meet local demand it will be because the LGU is able to sense public demand and to serve that demand by responding to the "price" of public services. The price will be a function of the grants and transfers available from the central government, production costs and the local tax burdens that different expenditure packages imply.

There are no purely quantitative indices that can be used to assess allocative efficiency. Allocative efficiency comes about because LGUs attempt to satisfy local preferences by adjusting the "product mix." Since there is no market price for public services and because local preferences are not directly observable, no direct measure of allocative efficiency is available. Therefore, in assessing allocative efficiency one must make a judgement about the likelihood that local demands are being met more fully through a fiscally decentralized system than they would be without FD. One must focus on those institutional variables that are necessary to achieve allocative efficiency and some indication that the mix of public services has been changed to meet local demands.

Three items are keys to evaluating allocative efficiency. First, local officials must have some mechanism for detecting what local demand is. Normally this is thought of as some form of democratic structure where constituents express their preferences through elections. However, there are examples of improved allocative efficiency without well-developed democracy, such as occurred in Chile during the later Pinochet years. Second, the importance of local taxes is often overlooked. To properly allocate resources, decision-makers should face the marginal costs of their decisions. An important part of the theory supporting FD as a means for greater allocative efficiency is that LGUs should have control of some of their own taxes and their constituents should feel the costs of service provision in their tax burdens (see Oates, 1972). People should be aware that increased service implies increased costs to them and that they face a budget constraint at least in part imposed by their own willingness to pay. Third, LGU officials must be held accountable for their actions. Democracy has its own built-in accountability, but decentralization is not always carried out in a democratic setting.

In assessing allocative efficiency one must start with a description of what the mix of goods and services is. One must then examine whether the mix has changed as greater or lesser degrees of FD are experienced. Incentives are important. For any change in the production mix one must search for reasons why the mix may have changed. One must search for incentives that LGU officials have to meet local demands and for local demands to be conditioned by the "hard" budgetary/tax constraints that force choices to be made.

### 4.2.1 Allocative efficiency: detecting local demand

To achieve allocative efficiency improvements there needs to be in place some mechanism to convey information to decision-makers about local tastes and preferences. That system is normally some democratic process that allows local people to express their preferences for goods and services as well as their willingness to pay for them. The literature abounds with references to the connection between democratic processes and the efficiency benefits from FD. Bird (1994) lists the existence of democratic processes as one of the necessary conditions for efficiency gains through FD. The primary connection between democracy and FD's allocative efficiency gains is that the latter come about when citizens match up marginal benefits from public spending with marginal costs of providing them. Some mechanism is needed to express citizen tastes and preferences about public versus private spending and taxation versus private finance. Democracy provides the mechanism.

Questions that should be answered include:

- Are there meaningful local elections?
- Are mayors and other LGU officials directly elected or are they elected by a council? The more direct the election, the greater is the attention that elected officials must pay to local spending preferences.
- Is the length of term held by local officials adequate to allow officials to carry out their mandates, yet not so long that they need not account for their decisions very often. For example, terms of 2 years or less may not allow officials to do what they have been elected to do. Terms of six years or more may reduce the accountability that officials should have to the electorates.
- Are decisions of a "corporatist" type? That is, is there some direct link between community participants and spending/taxation decisions? A corporatist structure would bring together LGUs with people from the central government, local and community officials and perhaps others (e.g., business leaders, unions, political parties).
- Do LGU officials use local advisory councils, hearings or surveys in an attempt to detect and verify local demand for services?
- Are there means for an effective information flow from LGUs to and from their constituents? Do LGU officials have an incentive to respond to the information. Citizens need a free flow of information to affect spending/taxation decisions.[6]

It is not so clear in the literature that FD induces improvements in democracy. As put by Peterson (1996:18), "Decentralization only provides a framework for governance. It cannot guarantee more effective citizen participation in civic life or higher standards of public accountability." Nevertheless, the little bit of empirical information that has accumulated indicates that citizens tend to trust local governments more than they do central governments (see Fiszbein, 1995, on Colombia and the surveys in El Salvador referred to by Peterson, 1996). Putnam's (1993) study of Italy shows a high correlation between the effectiveness of local institutions, citizen trust in these institutions and citizen participation. Thus, citizen participation, which is one of the cornerstones of the efficiency gains from FD, can be an output of the FD process. The fact that FD requires some democratic process to function at all implies a kind of symbiotic relationship between democracy and FD. FD reinforces democracy, and democracy is needed to promote the benefits (i.e., improved efficiency) of FD.

### 4.2.2 Allocative efficiency: local revenue

[6] See Campbell, et al., p. 18, and Peterson, p. 39, for a discussion.

An important element often forgotten in FD projects is that the costs of local goods and service provision should be paid for at least in part by the beneficiaries to reap maximum efficiency gains. For allocative efficiency, local constituents should feel the marginal costs of providing varying levels of public services. LGU decision makers and their constituents should feel "hard" budget constraints so that when making decisions they match the marginal costs of their actions with the marginal benefit to the community.

Two general areas of enquiry are required. First, there needs to be some local ability to independently control its own tax base and tax rates. Tax assignments must be clear. Some of the policies that we need examine are:

- What taxes are assigned to local governments?
- Are local taxes sufficient to allow variation in the provision of public services as compared with what would be provided by the central government?
- Are tax assignments clear and sufficient for all levels of local government (e.g., provinces, municipalities, etc.)?
- Are localities free to administer (some) taxes?
- What is the share of total local expenditure financed by own sources of revenue, over which local governments have control? The larger this share, the better.

Second, LGUs should face a hard budget constraint. They should not normally be "bailed out" by the central government when spending exceeds revenue and LGU borrowing should be very restricted. The studies by Campbell, et al., and Lopez Murphy, et al., reveal that in Latin America LGUs have not generally faced hard budget constraints as FD has occurred. In Latin America revenue transfers to LGUs have preceded expenditure responsibilities and little independent taxing authority has been given to LGUs. Therefore, LGUs have not had to make budget constrained choices from their own revenues and allocative efficiency has suffered. Indeed, assigning revenue to LGUs before expenditure responsibilities (and before local capacity has been developed) allowed LGUs to substitute central government revenues for local revenues. LGU budget constraints were weakened by FD. Under these circumstances citizens tend to demand more public services than they otherwise would.

### 4.2.3 Allocative efficiency: accountability

Local government officials must be held accountable for their decisions. In democratic settings there is a built-in accountability. Officials who do not provide the "right" mix of goods and services or who do not manage tax revenues well are simply voted out of office. Unfortunately, fiscal decentralization may occur in places where democratic institutions are weak. Also, some decentralization may occur where central governments use local governments as their agents to carry out national programs. In those cases of so-called "deconcentration," LGU officials are mainly accountable to the central government, even in cases where local-level democracy is well established. Procedures for holding LGUs accountable to central governments must be devised (see Winkler, 1994).

Public information and citizen participation are keys to maintaining accountability. Information should be easily available on cost and performance, tax rolls should be open to inspection, and tax exemptions and subsidies should be "visible." Citizen participation can help match services to local conditions even where programs originate with the central government. Citizen participation may be particularly important in raising public confidence that locally-raised revenues are managed responsibly. Without this confidence local taxpayers may be reluctant to tax themselves for improved services no matter how high the benefits from those services might be.

### 4.3 Fiscal efficiency

Fiscal efficiency deals with the ways in which LGUs are financed. There are three components. First, local taxes should connect taxpayers and the service they receive as much as possible (sometimes called the "correspondence principle"). Second, the intergovernmental grant structure should be as non-distorting as possible. That is, if goals of allocative efficiency are to be pursued, then LGU officials must know what local preferences are. Grants from the central government can distort local preferences and incentives and would make improvements in allocative efficiency difficult or impossible. Therefore, grants and transfers from the central government should adjust for externalities, without distorting local preferences. Third, local budgets should not threaten national macroeconomic stability. The allocation of spending and taxing responsibilities to LGUs should give flexibility and some independence to LGUs, subject to the constraint that LGU spending is consistent with national aggregate spending.

#### 4.3.1 Fiscal efficiency: local taxes correspond to services

Different taxes have differing abilities to connect local economic activity with local public services. Furthermore, LGUs usually share tax bases with the central government. When tax revenues are shared, the taxes giving rise to those revenues should be able to connect local economic activity with the shared revenue. Those that cannot make this connection are not good candidates for revenue sharing. Therefore, as candidates, the following hierarchy applies:

- Property taxes connect local economic activity to local services well and therefore are a logical kind of tax to assign to LGUs.
- Personal income taxes connect local economic activity to revenue well and therefore are a good candidate for tax sharing.
- Excises on a destination basis are also able to connect local economic activity to revenue, but not as well as personal income taxes. Sharing excise tax revenue is acceptable.
- Corporate income taxes are not so good for revenue sharing. There would be an apportionment problem and revenue assignment would be administratively messy.
- VAT would be a very poor candidate for revenue sharing because of the crediting and debiting among different subnational jurisdictions.

Occasionally, local authorities have the power to vary tax rates or change the tax base. Local power to change a tax base in most cases is a negative factor, while power to change the tax rate (on a given base) may be a positive factor depending on the tax. Local ability to change the rate on the property tax, the personal income tax and perhaps on the corporate income tax would normally be a positive factor, but changing the rate on the VAT would be very negative for fiscal efficiency.

### 4.3.2 Fiscal Efficiency: non-distorting inter-governmental grant structure

Some shifting of central government revenue to local governments will always be necessary because the assignment of expenditure responsibilities is different from the assignment of independent taxation authority. In many cases mandates from the central government will determine minimum spending no matter what local taxation possibilities are. Any system of revenue transfer should be based on automatic formulas driven by objective criteria. In most cases in Eastern Europe and the former Soviet Union, revenue transfers are a matter of periodic negotiation, even during a fiscal year. This weakens the independent ability of LGUs to commit themselves to desired levels of service provision and eliminates any long-term planning. Thus, one would want to know:

- Is there a system of equalization transfers? Is this based on formulas or on "negotiation"? If formulas, what are they? Are local shares driven by objective criteria or are they arbitrary and/or driven by negotiation?
- Do transfers encourage local tax effort?
- Is there a matching grant program? For only capital projects or for social expenditures as well? Matching grants encourage tax effort.
- Are there direct payments to local governments by the central government in compensation for mandates and direct central government services provided through the local governments?
- Are transfers for purposes that "internalize" local externalities?

### 4.3.3 Fiscal efficiency: no destabilization of the macro economy

In most cases the amount of expenditure independently determined by LGUs is small. Independent authority for LGUs to tax is smaller yet. Thus, it is not likely that FD will threaten macroeconomic stability in any major way. However, there have been cases, such as those of Argentina and Brazil, where LGUs have been given great powers to spend, tax and borrow. In those cases macroeconomic stability at the national level was damaged by excess local spending aided by almost indiscriminant borrowing, which eventually had to be covered by revenues from the central government.[7]

- Are LGU expenditures large enough to affect significantly macroeconomic stability?
- How are unfunded mandates dealt with (there shouldn't be any)?
- What is the local borrowing capacity? This should be very limited. Are there funding mechanisms to enable subnational governments to borrow, such as a financial intermediary fund? Do local governments issue bonds? Who lends? Are banks the only lenders, or does the general public lend? If banks, are they private or captive, state-owned or state-controlled?

[7] This situation was worsened in the Brazilian case by revenue sharing from inappropriate taxes, mainly the VAT.

If local governments borrow for capital investment purposes, at market rates and face hard budget constraints then the ability to borrow is acceptable. If loans and/or budget constraints are "soft" then borrowing is a negative factor. Borrowing to meet current expenditures is also normally a negative factor.

- Bailouts of local governments that have borrowed too much softens the hard budget constraint that is needed to connect the costs and benefits of taxation and expenditure (Wildasin, 1997).

## SECTION 5: AN INTERIM SUMMARY

In the next section we begin a brief case study of fiscal decentralization in the Philippines. Before we do that we should have clearly in mind the factors that should draw our attention. The main objective of the paper is to recommend methods for evaluating FD-related changes in economic efficiency so that when case study evaluations are done, the researcher can focus on variables of importance. Furthermore, we want to use methods that are practical in a developing country setting. Those methods must focus on a few key dimensions of FD such that the most important factors are examined early on, and idiosyncratic characteristics left to people who have a deeper interest in the development of the case country *per se*. We have defined and discussed efficiency concerns of three types, production efficiency, allocative efficiency and fiscal efficiency.

- Production efficiency refers to the cost at which specific goods and services are produced. If FD results in production efficiency improvements it is because resources are reallocated within expenditure categories to get the most output from whatever resources are available.
- Allocative efficiency matches public spending with consumer preferences. If FD affects allocative efficiency it is because resources are reallocated between expenditure categories to better match the needs of local constituencies.
- Fiscal efficiency deals with the ways in which LGUs are financed. Financing for LGU's should be through independent local taxes that "correspond" well to local services and through non-distorting grants and transfers from the central government.

Each kind of efficiency is broken down into several dimensions:

- Production efficiency evaluations should examine three factors. First, costs in providing local services should be compared to the costs of a "standard package" of services. Second, structural changes associated with likely production efficiency changes should be detailed. Third, local capabilities to provide services should be assessed. In cases where FD is new or changing, the second two dimensions will speak to the likelihood that production efficiencies will be gained, even though cost comparisons cannot yet be made.
- Allocative efficiency is determined by local officials matching the mix of goods and services to the preferences of their constituents, when constrained by the costs of providing varying levels of service. There are three dimensions that we recommend for evaluation. First, There must be some means for local officials to detect what local demand is. Normally this involves some form of democratic government, though other arrangements may work too. Second, goods and services supplied by LGUs should be financed in significant part by local taxes and LGUs

should confront a "hard" budget constraint. Third, LGU officials must be held accountable for their decisions by local voters, central governments or both.

- Fiscal efficiency deals with the way LGUs are financed. Three dimensions are of importance. First, local taxes should connect taxpayers with services they receive as much as possible. Second, recognizing that even in advanced federal systems much (and often most) local expenditure is financed by transfers and grants from central governments. The system of grants and transfers should provide adequate finance without overly distorting local preferences. Third, the system of finance for LGUs should not threaten national macroeconomic stability.

In each case we have identified what it is that we should be looking at for each kind of efficiency. We have also built upon the work begun in Discussion Paper #3 on fiscal decentralization. Each of the kinds of efficiency is very complex and a full investigation of them would be almost never-ending. Our objective was to come up with several important observations that could quickly reveal progress (or lack thereof) on the three kinds of efficiency, without imposing impractical amounts of research time. Furthermore, we recognize that most empirical questions cannot be answered directly due to lack of empirical data. We realize that much of the information that we find in most developing countries is anecdotal. Therefore, we use economic theory to organize both the data and the anecdotal information, to try to build a case based on "the preponderance of the evidence." We make a compromise here between academic refinement and practical application.

As was pointed out in Discussion Paper #3, judgement about the effects of FD are unavoidable. No method exists to apply purely quantitative methods to evaluations of FD. However, some quantitative data (particularly on production efficiency) combined with observations on key non-quantitative factors can support the inevitable judgements. One of our objectives here is to make those judgements easier.

## SECTION 6: THE CASE OF THE PHILIPPINES

A short case study of the Philippines is presented to illustrate the application of the case study methods suggested here. The Philippines case is particularly useful for illustrative purposes. The passage in 1991 of a new Local Government Code (referred to here as "the Code") represents a major shift in local governance in the Philippines. It consolidated and amended the Local Government Code of 1983, the Local Tax Code (Presidential Decree 231) and the Real Property Tax Code (Presidential Decree 464). The Code includes far-reaching provisions affecting the assignment of functions across different levels of government, revenue sharing between the central and the local governments, the resource generation/utilization authorities of LGUs and the participation of civil society in various aspects of local governance. These provisions are aimed at providing the framework in support of increased local autonomy.

Because the Code has been fully in force since 1993, the Philippines case represents a fairly neat "before and after" picture. Furthermore, within the Philippines there are a number of people in government, academia, NGOs and the research community who have been involved in fiscal decentralization for many years. They represent an important resource for studies of this kind.

Finally, in the Philippines there are more data available than one finds in most countries. This is not to say that the data are complete. They are not. But the data do allow basic comparisons to be made and some empirical statements tested.

## 6.1 Fiscal decentralization in the Philippines

The Philippines has a unitary form of government with a multi-tiered structure. It is a presidential republic with a bi-cameral legislature (composed of the Senate with 24 members and the House of Representatives with 240 members). At the top is the central government operating through some 20 departments/agencies. Administratively, the country is divided into 15 administrative regions and most departments maintain regional offices. In addition, there is one autonomous region, the Autonomous Region of Muslim Mindanao (ARMM). It should be emphasized, however, that the regions (with the exception of the ARMM) are just administrative sub-divisions and not regional governments with elected regional officials.

The second tier of government is composed of local government units (LGUs). The local government structure is composed of three layers. The first layer is composed of the province. In turn, the province is divided into municipalities and component cities, each of which is further subdivided into barangays, the smallest political unit. At the same time, highly urbanized cities exist at the same level as the provinces, i.e., they share the same functions and authorities. However, highly urbanized cities are partitioned directly into barangays (Figure 1).

At present, there are 77 provinces, 72 cities, 1,548 municipalities and some 42,000 barangays. Each level of LGU is headed by an elected chief executive (governor, mayor, barangay captain) and has a legislative body, or Sanggunian (composed of an elected vice-governor/mayor and council members). All elected officials have three-year terms of office and face term limits, normally three terms. To a large extent, each level of local government is autonomous although the higher level of government (e.g. provinces) exercise some degree of supervision over lower level governments (e.g., municipalities and component cities) in terms of budgeting and legislation.

The Code devolves to LGUs many functions previously discharged by central government. Prior to the implementation of the Code, the functions assigned to LGUs were limited to; the levy and collection of local taxes; the issuance and enforcement of regulations governing the operation of business activities in their jurisdictions; and the administration of certain services and facilities like garbage collection, public cemeteries, public markets and slaughterhouses. The central government carried the primary responsibility for agricultural planning and extension, construction and maintenance of local roads and public buildings and operation of high schools, hospitals/health services. In contrast, the Code transfers from national government agencies to LGUs the principal responsibility for the delivery of basic services and the operation of facilities in the following areas: agricultural extension and research, social forestry, environmental management and pollution control, primary health care, hospital care, social welfare services, repair and maintenance of infrastructure facilities, water supply and communal irrigation and land use planning (Table 1). The devolution is substantial not only in terms of the sheer number of functions that were shifted but more so in terms of number of personnel transferred. The Code specified that significant numbers of the personnel of national agencies would be transferred to and become employees of LGUs. Table 2 shows the numbers of devolved personnel and the corresponding reductions implied in the budgets of affected national government agencies appear in Table 3.

The Code also prescribes an LGU share in internal revenue taxes referred to as an internal revenue allotment or IRA.[8] Under the Code, the aggregate internal revenue allotment is set at 40 percent of internal revenue tax collections three years prior to the current year. By comparison, the pre-Code regime also prescribed an IRA that was at most equal to 20 percent of internal revenue taxes and which also lagged three years.[9] In addition, the Code provides that LGUs receive a 40 percent share in the proceeds from the utilization and development of national resources within their jurisdiction. The Code sets aside 40 percent of internal revenues, lagged three years, for transfer to LGUs. Twenty-three percent of the IRA is allocated to provinces, 23 percent to cities, 34 percent to municipalities, and 20 percent to barangays. The Code provides that the share of each particular LGU will be determined by a formula that takes into account population, land area and equal sharing. More specifically, 50 percent of the aggregate IRA share of each level of LGU is distributed according to each LGU' s share in total population, while 25 percent of the aggregate LGU share is allocated on the basis of land area, and the remaining 25 percent is allotted on an equal sharing basis.

Compared to pre-Code arrangements, the Code, increased transfers to LGUs, with barangays receiving the biggest proportional rate of increase, followed by cities and municipalities. In contrast, provinces registered the smallest incremental gain in the IRA. Hand-in-hand with the expansion in the IRA, additional expenditure responsibilities were also shifted to LGUs under the devolution program mandated under the Code. Provinces absorbed 45.6 percent of the total cost of devolved functions, municipalities 47.4 percent, cities 7.0 percent and barangays 0 percent. Taken together, the IRA is sufficient to cover the cost of devolved functions in the aggregate, but barangays and cities as a group are relative net gainers from the fiscal decentralization that was effected by the Code. Provinces and municipalities as a group are net losers with the latter being more adversely affected.

The Code allows LGUs greater autonomy in mobilizing resources from local sources and in allocating said resources to meeting local needs. First, the Code expanded the tax base of LGUs to include products, activities and sectors[10] that used to be outside the reach of local taxation. Second, it increased the maximum allowable rates at which most local taxes may be levied.[11] Third, it markedly liberalized the scope for LGU credit financing. Central government approval prior to the issuance of LGU debt is no longer required even as greater flexibility as to source and type of credit is allowed. Fourth, the Code repealed some of the statutory requirements that

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[8] The IRA is transferred as a block grant from the central government to LGUs.

[9] The amount of IRA that was actually appropriated during the pre-Code era was very often less than 20 percent of internal revenue taxes.

[10] Including agricultural products sold by non-marginal farmers and fishermen; forest concessions and products sold by concessionaires themselves; mines, mining operations and products when sold domestically by primary producers themselves; printing and publication of newspaper, magazine, review or bulletin appearing at regular intervals and having fixed price for subscription or sale; and banks and other financial institutions.

[11] However, the Code effectively reduced the assessment levels (for purposes of real property taxation) of residential land, all types of buildings and all types of machinery.

limited the latitude of LGUs in allocating their budgets. For instance, mandatory contributions to the Philippine National Police (which used to be set at 18 percent of LGUs' regular income in the general fund) and to hospitals operated by the Department of Health (which used to be equal to 3-5 percent of their regular income) were abolished.[12]

Finally, the Code provides that LGUs shall promote the establishment and operation of people's and non-governmental organizations (PVOs and NGOs) as active partners in the pursuit of local autonomy. In particular, the Code mandates the participation of PVOs and NGOs in local bodies like the local development council, local school board, local health board and local pre-qualification, bids and awards committee. This legal requirement that NGOs participate in local government is a unique feature of Philippine fiscal decentralization.

[12]However, the Code increased other mandatory expenditures like the statutory reserves for calamities. Also, it increased the number of mandatory positions in the local bureaucracy.

### 6.1.1 Degree of fiscal decentralization

Four alternative indicators of fiscal decentralization are used in this section. First, the revenue decentralization ratio (RDR) measures the relative importance of local revenues in total general government revenue.[13] It is defined as the share of LGUs in total general government revenue. Second, the expenditure decentralization ratio (EDR) measures the importance of local expenditures in general government expenditures. It is defined as the share of LGUs in aggregate general government expenditures. Third, the modified expenditure decentralization ratio (MEDR) takes into account the fact that some government activities like those on debt service are essentially the responsibility of the central government. The MEDR, thus, nets out debt service from total general government expenditure in calculating the expenditure decentralization ratio. Fourth, the financial autonomy ratio (FAR) provides an indication of local government independence from central government funding. It is computed as the ratio of locally raised revenues to total local expenditures.

Public sector finance in recent Philippine history remains largely concentrated at the center. Contrary to initial expectations, the increase in the RDR following the implementation of the Code was slight with the RDR rising from 4.9 percent in 1985-1991 to only 5.8 percent in 1992-1997 (Table 4). However, the degree of fiscal decentralization showed increasing intensity in the post-Code period when measured by the EDR and MEDR. The EDR doubled from 7.0 percent in 1985-1991 to 14.7 in 1992-1997. A similar picture was observed for the MEDR but the MEDR is 4-6 percentage points higher than the EDR in any case. Moreover, fiscal decentralization appeared to have deepened in the later years of Code implementation (1995-1997) relative to the early years (1992-1994) when measured by the RDR, EDR and MEDR. All three indicators registered substantial increments between the two post-Code sub-periods.

In contrast, the degree of fiscal decentralization appeared to have declined with the implementation of the Code when measured by the FAR. Thus, the FAR dropped from 51.6 percent in the pre-Code period to 36.7 percent in the post-Code period. This is to be expected given the step-wise increase in the IRA. Also, the FAR was observed to have been on the wane as one moves from the early post-Code period to the late post-Code period. It is apparent that local revenue generation is lagging revenue generated through the IRA. The FAR declined from 38.8 percent (1992-94) to 34.5 percent (1995-97).

Some variation in the FAR across different levels of LGUs is evident. Table 5 shows that city local government units ("cities") enjoy the greatest degree of fiscal autonomy. In 1985-1991, their FAR was highest at 66.4 percent compared to the municipalities' 48.3 percent and the provinces 34.3 percent. With the implementation of the Code, the FAR of all levels of government dropped as the IRA increased. Cities continued to post higher FARs than municipalities and provinces. In 1992-1997, the FAR of cities was 49.8 percent compared to municipalities' 33.4 percent and provinces' 21.5 percent. More notable is that the FAR dropped for both municipalities and provinces over the 1992-97 period, but it did not drop for cities. This suggests that cities have a local tax base that is not available to provinces and municipalities. Indeed, the Code allocates a business tax to cities (and municipalities) but not to provinces.

[13] General government is comprised of the central government and the local government units.

The FAR as well as the RDR focus on the relative significance of locally sourced revenues. As such, these indicators may be misleading indicators of local autonomy in cases (like the Philippines) where taxes assigned to LGUs are rather limited and where transfers from the central government to local governments are mandated by law to be substantial. It should be noted that while Philippine LGUs have relatively less scope in raising own-source revenues, they do exercise considerable autonomy in deciding how to spend their total resources, including their share in internal revenue taxes collected by the central government. However, LGU-to-LGU variations in the RDR and FAR do measure the extent to which some LGUs are more (or less) financially autonomous relative to others. That is, LGUs that impose higher local taxes and/or collect local taxes more efficiently will score higher on the RDR and FAR than others. The EDR and the MEDR may provide a better picture of the degree of fiscal decentralization over time in the case of the Philippines. It captures well the shift in the expenditure responsibilities that devolution brought about. However, the RDR and the FAR are superior in focusing attention on how well local governments have performed relative to each other in utilizing their revenue raising powers to finance local needs.

The general picture that emerges is one where LGUs have relatively greater expenditure responsibilities, yet those expenditures are covered mainly by transfers from the central government. Locally raised revenue pays for a very small part of total expenditures, and LGU dependency on the central government as a source of revenue has increased substantially. Cities are more financially independent than municipalities and provinces, but then this would be expected where financial independence is based on a property tax and a business turnover tax, the two main taxes assigned to LGUs. Simply put, cities have more valuable property to tax and more business turnover than other governmental units.

### 6.1.2 LGU income structure

An expanding IRA was the main feature of the Code' s implementation in its first few years. Total receipts of all LGUs in the aggregate were equal to 1.7 percent of GNP in 1985-1991 (Figure 2). This amount was divided almost equally between locally sourced revenue and externally sourced revenue. Externally sourced revenue is almost exclusively from the IRA. In 1992-1997, the share of income from external sources registered a marked increase as the Code raised the IRA for all LGUs in a stepwise fashion. External revenues expanded from 52.0 percent in the earlier period to 64.7 percent after 1992 (Figure 3). LGU income from external sources surged from 0.9 percent to 2.2 percent of GNP, while LGU local source revenues inched upwards from 0.8 percent to 1.2 percent of GNP (Figure 2).

Code-mandated phased-in increments in the IRA peaked in 1994 (Figure 2 and Figure 3). In contrast, the ratio of locally sourced revenue to GNP (local revenue effort) increased during the post-Code period. However, the increasing local revenue effort in the post-Code period appeared to be confined to Cities alone since the local revenue effort of municipalities and provinces remained fairly stable during the same period (Figure 2).

There is a significant variation in the importance of externallysourced income in the total receipts of different levels of local governments. Provinces are the most dependent on non-local sources of income. In the post-Code period, externally sourced revenue averaged 79.5 percent for provinces, 68.7 percent for municipalities and 50.9 percent for cities. In all cases, the share of externally sourced revenue expanded in 1992-1997.

The bulk of locally sourced revenues of LGUs come from tax revenues rather than user fees. The share of tax revenues to total locally sourced revenues expanded from 66 percent in the pre-Code period to 74 percent in the post-Code period. Figure 4 presents the breakdown of locally generated revenues of LGUs. It shows that the share of taxes to aggregate locally generated revenues was consistently largest in cities and smallest in provinces in both the pre-Code and post-Code regimes, indicative perhaps of the limited taxing authorities of the latter.[14]
Figure 5 differentiates between different types of local taxes. It suggests that while the real property tax (RPT) continues to be the single biggest source of revenue for LGUs, its contribution to total LGU tax revenue declined from 61 percent in 1985-1991 to 51 percent in 1992-1997. Provinces relied the most heavily on the RPT in contrast to cities, which were the least dependent on this tax source.

It was expected at the outset that local taxes would assume ever-increasing importance for LGU finance. This has not been the case. Table 9 presents buoyancy coefficients[15] of the major sources of locally generated LGU revenue. Prior to the Code (1983-91), local source revenue of all LGUs in the aggregate was mildly inelastic, with a buoyancy coefficient of 0.97. This was mainly due to the inelasticity of the dominant revenue source: the real property tax. The buoyancy of the RPT with respect to GNP for all LGUs was 0.88 during this period, indicating that real property tax collections did not keep pace with GNP growth. Following the implementation of the Code, the overall buoyancy coefficient of aggregate local source revenue of all LGUs registered a dramatic improvement, with the coefficient rising to 2.33 in 1992-1997. The improvement in the overall buoyancy coefficient of non-RPT taxes was particularly hefty. Significant gains in the revenue performance of the RPT were also made during the period. Most of the gains were made in cities. Provinces and municipalities made some progress but this was much more modest than it is in cities.

The progress attained with respect to non-RPT taxes was primarily due to improvements in the rate elasticity (i.e., rate increases that were brought about by the adoption of the higher rates allowable under the Code). On the other hand, the advances made in the RPT arena were mostly attributable to improvements in the base buoyancy. This came about as most LGUs implemented a general revision of the schedule of assessed value of real property in 1993-94 and 1996-97. The

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[14] To a large extent, various types of taxes are assigned exclusively to different levels of governments. However, there are instances where different levels of government are empowered to impose the same type of tax. The major part of local government tax receipts are derived from the real property tax and local business taxes although there is a plethora of other taxes and fees that LGUs are authorized to levy. The base of each of these taxes is defined by central government legislation, which also limits (i.e., sets floors and/or ceilings) on the tax rates that LGUs may impose. Note that only cities and municipalities (but not provinces) are authorized to levy local business taxes. In addition to the real property tax, provinces are allowed to levy a tax on the following: transfer of ownership of real property, franchises, business of printing or publication, sand and gravel extraction, professionals, amusement places, and delivery vans.

[15] Buoyancy coefficients show the rate at which tax revenues are increasing relative to the increase in some other variable such as GDP. For example, a buoyancy coefficient of 1.0 says that revenues increase (i.e., they change) at the same rate as GDP. A lower number implies slower growth, etc.

Code mandated a revaluation of real properties in 1993 (to take effect in 1994) and then again in 1996 (to take effect in 1996). Increases in RPT buoyancy reflect these assessed value increases, not an improvement in RPT administration. Higher buoyancy increases for cities reflect that cities were aggressive in implementing the new assessments; provinces and municipalities lagged in implementation and this is reflected in lower RPT buoyancies.

Despite some post-code improvement, RPT revenue generation has not met expectations, and given the cost of collection the RPT represents a net loss for most LGUs. Table 12 illustrates the problem. Data in the table are taken from a pilot project initiated by the GOLD project to improve upon revenue generation from the RPT. The data refer to collection efficiency, measured as the percentage of potential revenue actually collected and cost of collection, represented by the cost in pesos of collecting one peso in revenue.[16] The data are unweighted averages for the period 1993-97. The pilot project was conducted in four provinces and in several municipalities within those provinces. Data for two provinces (Nueva Vizcaya and Cotobato) distinguished information for each pilot municipality, while Capiz and Palawan Provinces offered data only on averages for the group of pilot municipalities. Three observations are important:

- Collection efficiency is very low. Rarely does a LGU collect even one half of the revenue that is collectible.
- The cost of collection exceeds the revenue collected in all cases but one (the province-wide average for Capiz). This implies that for these LGUs the RPT is a burden rather than a source of revenue. The fact that these LGUs collect some RPT revenue gives the illusion that the RPT is a viable source of revenue. These LGUs would have more net revenue if they never bothered to administer the tax at all!
- Even if 100 percent of collectible revenue were collected (i.e., an efficiency of 100 percent), given the costs of collection the tax would be not be an important contributor to net revenues. For example, if collection were 100 percent and if the provinces incurred no greater expense than they now do, the costs to collect one peso of revenue would be between P0.44 and P0.61.[17] Given these costs, each peso spent on collection would yield between P1.64 and P2.27. This yield is extremely low.

Over the period, collection efficiencies generally improved, but cost of collection did not. Given the fact that even 100 percent collection efficiency would not result in significant net revenue gains, one must question the role of the RPT as a contributor to LGU revenue independence.

### 6.1.3 LGU expenditure structure

[16]One could easily quibble with these data. The format for reporting for each province was not standardized, and several definitions of "collections" were used. In many cases the reports did not make clear which definition of "collections" was employed. Also, collection costs could have been defined and measured in several different ways, but the report is not clear. Nevertheless, over several different definitions the data show the same patterns appearing in the table.

[17] Assuming 100 percent collection efficiency and given the costs shown in Table 12, the cost of collecting one peso in revenue would be P0.49 in Capiz, P0.44 in Cotabato, P0.50 in Nueva Vizcaya and P0.61 in Palawan.

Consistent with the devolution program, LGU spending on the social sectors rose markedly at all levels of government in the post-Code era. Total LGU expenditure was equal to 1.6 percent of GNP on the average in 1985-1991 (Figure 6). During this period, 42.8 percent of total LGU expenditure was on general public services, 32.9 percent on economic services and 20.5 percent on social services (Figure 7).[18]

The mandated transfer to LGUs of functions previously discharged by national government agencies caused a major shift in the size and composition of LGU budgets. Aggregate LGU expenditure rose from an average of 1.6 percent of GNP in 1985-1991 to 3.3 percent of GNP in 1993-1997 (Figure 6).[19] Most of the increment in LGU spending went to social services and general public services (both of whose budgets increased by 0.6 percent of GNP between these two periods). In contrast, LGU spending on economic services expanded by only 0.4 percent of GNP. Consequently, the share of social services to total LGU expenditure increased by 6.5 percentage points to 27.0 percent while that of economic services and general public services dropped by 6.4 percentage points and 3.4 percentage points to 26.5 and 39.5 percent, respectively (Figure 7).

The composition of LGU expenditures varies according to the level of local government. General public services captured the lion's share of municipalities' budgets while economic service sectors received the biggest share of total provincial outlays. In contrast, the expenditure of cities was more evenly distributed across sectors. In the period prior to the implementation of the Code, the ratio of social sector spending to total expenditure of provinces was highest at 21.1 percent, while that of municipalities was lowest at 14.7 percent.

There was an expansion in the budget share of the social service sectors relative to the economic and general public service sectors in all levels of local government. Consistent with the fact that provinces absorbed the bulk of social service functions, these expanded the most (from 21.1 percent in 1985-1991 to 35.1 percent in 1993-1997). Most significant among the social service functions assigned to provinces is the operation of tertiary hospitals, which is probably the single most costly service devolved to LGUs. Likewise, the social service expenditures of municipalities rose substantially (from 14.7 percent to 21.9 percent). In contrast, the share of social services in the aggregate city budgets remained stable in the vicinity of 26.7 percent (Figure 7).

The increase in aggregate LGU expenditure on social services between 1985-1991 and 1993-1997 went to health, education, housing/community development and social welfare, in that order. This development is largely due to the fact that the cost of devolved health functions accounted for more than half of the total cost of all devolved functions. At the same time, the cost of devolved social welfare services, although not as large, was also substantial. In other words, higher LGU spending on health and social welfare services in 1993-1997 was less a product of conscious policy choices by LGUs and more a reflection of inherited obligations. In contrast, higher LGU expenditures on education and housing/community development do reflect the higher priority that

[18] Social services include education, health, social welfare, labor and employment, housing and community development. Economic services include agrarian reform, agriculture, natural resources, industry, trade, tourism, power and energy, water resources development and flood control, transportation, communication and others. General public services are public administration and peace and order.

[19] The devolution program was started in 1992 but was completed towards the end of 1993.

local officials assign to these sectors in the more decentralized regime, since the direct impact of the devolution program on these sectors was nil.

### 6.1.4 LGU expenditure before and after devolution

The previous section established that there has been a dramatic increase in local government spending in nominal and relative terms between 1985-1991 and 1993-1997. But this is partly explained by the transfer of expenditure responsibilities to LGUs from the national government agencies, whose budgets were substantially reduced (at least at the outset). It is not as obvious whether the larger LGU outlays in 1993-1997 maintained or augmented the level of services enjoyed by local communities. To assess whether indeed LGUs have increased (or decreased) spending on the various sectors, the analysis must consider the cost of devolved functions.

What would the LGU expenditure level in 1993-1994 have been if LGUs continued to spend what they did in 1991 and, in addition, maintained the level of spending by the national government agencies on devolved functions? Table 6 estimates what is needed to preserve general government expenditures at their 1991 levels in real per capita terms (i.e., after adjusting for inflation and population growth). It is this that is compared with actual levels of LGU expenditures in 1993-1994.

The results show that actual aggregate LGU spending in 1993-1994 was more than enough to maintain the spending level of 1991, even after taking inflation and population growth into account. In particular, actual LGU spending on general public services and on social services greatly exceeded 1991 levels but focus within the social sector shifted. In education, LGUs in 1994 spent almost four times what was needed to cope with both inflation and population growth. Provinces, municipalities and cities all gave education high priority. Total LGU spending on housing and community development in 1994 was more than twice the amount required to preserve the 1991 level in real per capita terms. Housing and community expenditures of municipalities and cities exhibited significant growth in real per capita terms unlike those of provincial governments, which barely kept up with inflation and population growth.

In contrast, actual 1993-1994 expenditure on social welfare by all types of LGUs (except provinces) fell short of 1991 levels and did not even keep up with inflation. While the 1993 spending of LGUs in all levels on health (with the exception of cities) was also below the amount needed to sustain previous levels in real per capita terms, 1994 health expenditures of LGUs in all levels was sufficient to maintain previous levels in real per capita terms.

LGU spending on economic services in 1993 did not even keep up with prices, let alone population growth while 1994 spending levels on these sectors was enough to sustain 1991 expenditure levels in real per capita terms. Within the economic sectors, agriculture was badly hit with both 1993 and 1994 LGU spending levels falling short of the amount required to maintain 1991 levels in real per capita terms. Although LGU spending on the transportation/communication and other economic services in 1993 was not enough to preserve the 1991 levels after adjusting for inflation and population growth, the situation was reversed in 1994.

In general, therefore, one must conclude that LGUs "underspent" on health, social welfare and agriculture services relative to levels prevailing before devolution. It would seem a puzzle and a cause for concern as to why LGUs have allocated less to certain types of services and more to others. LGUs as a whole have, after all, received more than sufficient amounts to continue providing the services devolved from national government agencies. There have been specific cases, of course, where the devolution formula was unmistakably deficient, so that IRAs were insufficient to even cover the cost of devolved functions.[20] Yet this cannot have been the main reason for LGU underspending, for even provincial governments with sufficiently large social services budgets chose to allocate these differently, spending more, say, in the direction of education. What this suggests is that after devolution, many LGUs have essentially chosen to discontinue the pattern of budget allocation previously implemented by national government agencies, most likely because these do not accord with their own priorities.

There are three possibilities. First, the devolved functions themselves may be deemed unresponsive or unimportant to actual local needs. For provinces, in particular, a large part of devolved health services consists of huge outlays for tertiary hospitals, which are nonetheless ill equipped and unresponsive to community needs. It is not surprising, therefore, that some LGUs choose to discontinue their support for such services. Second, if LGUs are given expenditure responsibilities with significant spillover effects (i.e., responsibilities, like public health services, whose benefits not exclusively enjoyed by their constituents) then it is expected that LGUs will underprovide these services without additional financial support from the central government, perhaps in the form of matching grants. If the benefits are confined to a well-defined sub-national area, then cost sharing among LGUs that benefit from the service may be the more appropriate arrangement. There is a third possibility that LGU priorities themselves may be misplaced or badly informed, placing expedient showcase projects ahead of continuing programs with long term effects.

## SECTION 7: OBSERVATIONS ON EFFICIENCY IN THE PHILIPPINES

Section 4 summarized the factors that one would want to observe to make judgements about efficiency changes associated with fiscal decentralization. That discussion leads to a focus on three dimensions of efficiency, production, allocation and fiscal efficiencies. Section 6 summarized salient features of fiscal decentralization in the Philippines. We now combine these to comment on likely efficiency changes from fiscal decentralization in the Philippines case.

### 7.1 Production efficiency

Production efficiency has three main components. The first is conceptually the simplest and deals with the cost of production differences between LGUs and centralized national government agencies. Second, structural changes can promote the quest among LGUs to seek cost minimization. Third, local capabilities will influence how well LGUs are able to perform.

[20] For instance, 37 provinces out of 65 with complete data had negative per capita net resource transfer in 1993 (i.e., 1993 IRA less 1992 IRA less cost of devolved functions adjusted for inflation). In 1994, however, the number of provinces with negative resource transfer was down to three (Manasan 1997).

### 7.1.1 Production efficiency: cost comparisons

It is extremely difficult to obtain comparable and aggregate cost estimates of various goods and services delivered or facilities operated by LGUs and the central government alike. In most cases LGUs and the central government provide different things, so no comparison is possible. In other cases where they do provide the same things, there may be significant qualitative differences. LGUs may choose to build smaller, less elaborate classrooms than the central government. LGUs may choose to build roads that are narrower or less able to carry heavy loads. LGU concepts of what constitutes health care may differ from those of the central government. The best one can achieve in the Philippines, and indeed in any developing country, is to assemble the great mass of anecdotal evidence that LGUs do it better/cheaper, or at least differently when compared to the central government.

***School buildings.*** Experience under the on-going Third Elementary Education Project (TEEP) of the World Bank indicates that LGUs are able to construct school buildings at a lower cost than the Department of Public Works and Highways (DPWH), which implements the School Building Program (SBP) of the Department of Education. The World Bank (1998) noted that LGUs' cost in constructing one classroom is P180,000 while data from San Carlos City (in Western Visayas) indicated that its unit cost to build one classroom is P235,000. Compare these figures with the DPWH's unit cost of P305,000.

It should be emphasized that the lower cost incurred by LGUs in the construction of school buildings is a theme that is repeated heard in interviews with LGU officials from Benguet and Ifugao in the northern part of the country to Agusan del Sur in the south.[21] Alonzo (1998) also reports that many local government officials pride themselves in being able to construct three classrooms for the DPWH price for two.

Part of the explanation for this phenomenon appears to stem from the fact that the DPWH cost estimate includes an allowance for management overhead which LGUs' costings do not include. LGUs also suggest that they are able to use lower cost materials that are locally available (say, sand/gravel from LGU-operated quarries). Also, some LGUs encourage local communities to contribute labor inputs.

***Day Care Centers.*** Data from San Carlos City indicates that its unit cost in constructing a 64 sq. meter day care center in 1998 is P285,000. The comparable figure used by the Department of Social Welfare in costing the day care center portion of its Early Childhood Education Project is P304,000-P338,789. Most barangays have initiated day care facilities in the post-Code period. Most of these rely on donated space, space that is normally used for other purposes or facilities rented at very modest cost. If the objective is the provision of day care rather than the establishment of a day care center, then the barangay programs' costs come in far below those of the central government. Admittedly, the barangay programs may appear rather "rustic" by comparison, but provide the service nevertheless.

[21] These interviews were made for the project appraisal mission for the Secondary Education Development and Improvement Project of the Asian Development Bank in early 1998.

***Road Construction.*** Data from San Carlos City show that the city was able to construct the 42 km Translink Highway at a cost of P2 million per kilometer.[22] In comparison, information obtained from the DPWH suggests that the cost of a similar road construction activity is P2.2 million per kilometer. Alonzo (1998) reports that barangay roads are constructed by some LGUs at the two-thirds the cost of similar roads constructed by the DPWH.

### 7.1.2 Production efficiency: structural changes

Table 7 and Table 8 document the ex-post assignment of expenditure responsibilities across levels of government before devolution, in the transition phase of the devolution program and in recent years. Table 7 confirms the shift of more functions from the central government to LGUs. The transfer was dramatic in the areas of health, agriculture and social welfare. While Table 7 suggests that many responsibilities are shared by LGUs with the central government, the Code actually provides an explicit and clear delineation of functions across levels of governments except perhaps in the area of environment and natural resource management.[23]

The devolution of expenditure responsibilities to LGUs, with a few important exceptions, is consistent with the decentralization theorem. For the most part, these are activities that can be provided at low levels of government. The activities identified have few important spillovers to a broader community to indicate that they should be provided by higher levels of government. The functioning of the decentralization theorem is enhanced by the Philippine tendency for LGUs to regroup into larger cooperative units when important spillovers occur. Generally, significant expenditure responsibilities are devolved to very small LGUs, such as the barangays. Even most municipalities are very small, both geographically and in population. Frequently, smaller LGUs form joint efforts to carry out their responsibilities when there are economies in so doing and when inter-LGU spillovers are present. Many examples exist of contiguous LGUs combining their resources to deal with watershed problems, coastal and local fishing problems, solid waste disposal and others

There are two important exceptions to application of the decentralization theorem. Most education and law enforcement are still provided at the national level. In 1997 central government agencies accounted for 92 percent of all education spending and 98 percent of all law enforcement. School construction and maintenance are devolved to LGUs and indeed this reaches low levels of decision making. Both are controlled by local school boards and are funded by a property tax "add-on" called the Special Education Fund (SEF). On the margin, school construction and maintenance comes from the SEF. Teachers salaries and overall education policy is made at the national level, and all teachers are national employees of the Department of Education, Culture and Sports (DECS).[24] Large parts of both education and law enforcement

[22] The construction under this project was limited to the following: embankment, sub-grade preparation and aggregate sub-base course.

[23] For instance, the Code gives municipalities implementing responsibility over community-based forestry and watershed projects but allows the DENR to retain supervision and control over such projects (Gonzlez 1996).

[24] One of the reasons for not devolving education is an idiosyncrasy of the Philippine electoral system. Teachers serve as the Board of Election Inspectors. That is, they conduct the elections and man the precincts during

could be devolved to LGUs and such a move would probably improve upon production efficiency.

Expenditure assignments are generally clear and well understood by LGUs, but the national government does not always "allow" LGUs to follow their own predilections in areas that have been assigned to them. Our interviews revealed many cases where national government agencies try to dictate to LGUs how they should be carrying out their expenditure responsibilities. This interference in LGU affairs by national agencies comes from several sources:

- The Department of Interior and Local Government (DILG) feels that it has responsibility to "supervise" LGUs. Language in the Code to this effect has never defined the word "supervise."
- DILG and other national agencies do not recognize the independence of LGUs and act to protect their own turf.
- National agencies apply the programs that they have worked out with donors. Donor programs are normally oriented around national programs and loans are managed by national agencies. In many cases national agencies carry out these programs without LGU consultation.
- Devolved personnel are often more sympathetic to the interests of national agencies than they are to LGUs. Many of them would prefer to be renationalized and wish to maintain their affiliation and loyalty toward national agencies. Compared to several years ago, the preference for renationalization among devolved employees is decreasing. This is particularly the case in the more successful LGUs where emloyees have found reasonable opportunities for advancement and job satisfaction.
- Particularly in activities associated with agriculture are devolved personnel likely to support national programs than those of LGUs. Agricultural extension and irrigation are devolved responsibilities. Nevertheless, LGUs have not taken "ownership" of these activities and have more interest in local agricultural interests such as providing for specialized crop production, market access, transportation, sanitation and others. Meanwhile, the Department of Agriculture focuses more on food security and grain production, areas that do not seem to interest LGUs at all. Many LGUs are not equipped to support extension agents, for they have little money for operations (e.g. for fuel, vehicles, materials). In the end, while personnel devolved from the Department of Agriculture to LGUs are paid by the latter, many continue to maintain their loyalty to the Department.

Apparently, national government agencies have not learned how to work well with LGUs and consider it their responsibility to impose national standards and programs. National agencies provide no back-up to LGUs in carrying out their devolved functions. This problem may be more apparent than real. While LGUs report many instances where national government agencies try to tell them what to do, few consider it a problem. Most LGUs simply ignore those national agencies that do not serve LGU interests. Nevertheless, LGUs report that they sometimes go along with National agencies because they control resources that may be lost to the LGU if they were uncooperative.

elections. During debate on devolution it was reasoned that devolving teachers could overly politicize elections at the local level.

One can only surmise that the devolved national government agencies (NGAs) have not fully given up on their devolved functions in the interest of turf-maximization. Section 17 of the Code (which allows for central government augmentation or direct provisioning of basic services assigned to lower levels of government) provides NGAs the legal cover to do this. Moreover, the Code and its Implementing Rules and Regulations failed to define the mechanisms through which national government can direct such assistance to LGUs. At the same time, Executive Order (EO) 53 mandates that NGAs retain management control over all foreign-assisted projects and/or nationally funded projects even if the same involve devolved activities. On the other hand, many of the so-called devolved NGAs are made accountable for the overall outcome in their respective areas and as such they deem it their responsibility to direct LGU behavior in support of national objective.[25] Thus, most of them tend to make full use of the provisions of the Code and EO 53 regarding augmentation. Consequently, the existing regulatory framework effectively permits, even encourages, the existence of a two-track delivery system, where both NGAs and LGUs can initiate devolved activities (Gonzalez, 1996).

In 1996 the Investment Coordinating Committee (ICC), a national government agency, laid down the policy framework for LGU access to official development assistance (ODA). Central to the procedural guide, prescribed by the ICC, for the design of co-financing programs between a NGA and one or more LGUs is the "lead agency" requirement. This means that a national government agency has to take the initiative in identifying and developing a co-financing program within the context of a sector program. The lead agency also has the responsibility for securing ICC approval, and subsequently, setting up the project management office. The lead agency requirement, by its very nature, makes both project design and implementation highly centralized. As a result, central agencies tend to retain some activities (like implementation oversight, monitoring and evaluation, and procurement and service delivery) that are better performed by lower level governments. Consequently, it further reinforces the two-track delivery system referred to earlier.

Some signs of "creeping re-nationalization" of devolved activities can be observed in Table 8. As one would expect, national government (non-debt service) spending during the Code implementation period (1992-94) dropped from 11.6 percent of GNP to 11.4 percent. It is surprising how slight this drop is during a major shift to fiscal decentralization. Since 1994 the percentage of central government spending rose to 13.2 percent of GNP. Growth rates in components of the national budget, where the national government shares responsibilities with LGUs indicates very rapid growth for centralized programs. During 1994-97 there has been a pronounced increase in health, environment and natural resources, agriculture and social welfare. As a percentage of all non-debt service spending, the central government's share fell from 88.3 percent in 1992 to 77.9 percent in 1994, but then rose to 78.7 percent in 1997.

Revenue assignments are an important feature of the structure within which LGUs operate. They are of three kinds:

[25] For instance, DOH is accountable for the overall health status of the country in the same way that the DENR is accountable for overall environmental and natural resource management results.

- The Internal Revenue Allotment is very clear and the assignment formula has the virtue of being very simple. Its main defect is that LGUs received 40 percent of national revenues lagged three years. Thus, the actual amount of revenue is known only in pesos and not in real terms. As we have seen, by the time revenue is actually delivered to LGUs it has been seriously eroded by inflation. IRA allotments can also be affected by national priorities. In 1998 as an emergency measure, the President ordered that the share of LGUs be reduced by 10 percent as a means to deal with the Asian financial crisis.[26] Thus, LGUs were not as able to plan and execute their plans as they had in the past. While most LGUs were forced to cut back on their expenditures, those whose IRA is only a small part of their total revenue felt little effect.[27]
- Central government tax and fee revenues associated with natural resource extraction within an LGU's territory are shared with LGUs. Forty percent of these revenues, lagged one year, are supposed to be delivered to the LGUs to be used in unrestricted ways. Few LGUs have been able to collect their share of this revenue. Indeed, few are able to estimate what this revenue is and the national government has not been forthcoming in stating what the revenue to be shared is. These natural resource-based revenues are the least reliable source of revenues to LGUs, and are not a source at all for most LGUs despite their specification in the Code.
- Local revenue sources have been designated exclusively for LGUs. These are a business tax (a turnover tax), the real property tax (RPT) and user fees.

The three sources of revenue to LGUs suffer from important flaws. Ideally, one would want sources that are dependable, allow multi-period planning and funding for projects that span several years. The IRA is most dependable, but the inflation tax built into it and its apparent vulnerability to political exigencies create considerable uncertainty. The share of natural resource revenues is totally unreliable. As we saw above, local revenue sources have not kept up with LGU spending requirements.

LGUs are not very constrained in the way that they spend their IRAs and other revenues. The Code specifies that 20 percent of the IRA must be earmarked for a "Development Fund" and used only for development purposes. Within that 20 percent, 5 percent is earmarked for disaster relief. Other than that, LGUs can determine how to meet their expenditure responsibilities without constraint. However, LGUs report that many of the expenditures they make anyway can be considered "development" so they have no problem satisfying the requirement without compromising their independence. The disaster fund can be held over to subsequent periods and used in any way LGUs want if there is no disaster. Most consider the disaster fund an advantage because they are able to act quickly in the event of disaster, but suffer no revenue loss if none occurs.

[26] At the same time national agencies were required to cut back by 25 percent.
[27] At the time of this research there was considerable debate and a potential supreme court case about whether the reduction in the IRA was legal. LGUs of course maintain that their shares are determined by the Code and cannot be cut. This position has some support in legislative circles. There are several signs that decentralization has become a priority item in the Philippines. When budget cuts were imposed to mitigate the Asian financial crisis, LGUs were cut less than national agencies. The Countrywide Development Funds (CDF) that were given to each congressman to use as he/she saw fit were eliminated entirely. Previously, CDF almost matched the IRA in magnitude and were the major source of "pork" for congressmen.

### 7.1.3 Production efficiency: local capabilities

Initially, LGUs had difficulty mustering the skills needed to carry out their devolved responsibilities. Over time these problems seem to have declined. Several important incentive problems exist that have made it difficult for LGUs to carry out their responsibilities. These include:

- Municipal and provincial treasurers are employees of the Department of Finance rather than of the municipality. Treasurers and assistant treasurers may work for the mayor and be paid out of LGU revenue, but their ultimate loyalty is to the DOF. Meanwhile, the DOF does not prescribe any standards for property tax assessment and collection. Treasurers are on their own.
- Workers who were devolved to the LGUs as part of the decentralization scheme are reported to have concerns about their career development paths that may reduce their incentives to fully participate in developing the system of LGUs. GOLD has pointed out (97-04) that these people are legally entitled to all the facilities that they could use to advance their careers had they remained with the central government. However, the fact that many of them are in out-of-the-way locations that some may consider backwaters apparently gives them the impression that they have been marginalized. Furthermore, most LGUs impose a residency requirement on employees. Thus, a devolved employee cannot easily move from one LGU to another without quitting, moving and taking their chance in the job market. Few are willing to do this and most feel trapped in the LGU to which they were originally assigned. Many devolved workers want recentralization.
- Pay scales are set by the national government and apply to all government employees, including those working for LGUs. Increases in pay scales come as an unfunded mandate. Some LGUs cannot afford to pay these salaries and routinely ignore them. Laws setting pay scales usually have language in them about "as the availability of funds permits," which allows LGUs to pay less than official rates. There is a clear incentive problem among employees who feel that they are not getting the salaries to which they are entitled.

Despite these incentive problems, some LGUs are now considered better places to work than they were before devolution. Several people interviewed agreed that they preferred to work for their LGU because LGUs could now provide career opportunities, the work environment was better than in national agencies and the pay was the same as it is at national agencies. Furthermore, smaller cities were becoming better places to live as local services improved.

Innovation by LGUs can stretch the revenue and skills available to them in ways that are probably not available to the national government. Capabilities of LGUs to deliver services are enhanced by their abilities to mobilize local resources and people and combine that with modest amounts of revenue. Examples abound. Pineda (1998) identifies a great number of innovative ways that LGUs have used to extend health care such as organizing volunteers, placing barangay health stations in private homes of concerned citizens, hiring part-time workers and soliciting help from the local private sector among others. Mercado (1998) documents many innovations in environmental services such as coastal protection and solid waste management by way of community involvement, often including input from NGOs. The Galing Pook Awards discussed in Miller (1999) offer many innovative examples. Interviews indicate that innovations of these kind are a growing trend as experience accumulates.

In summary, production efficiency has probably been improved. However, efficiency improvements must have been modest since LGUs only spend about 3.7 percent of GDP (in 1997) compared to about 1.9 percent in the immediate pre-Code period. Cost comparisons seem to favor LGUs over national agencies. Structural changes, with a few exceptions, follow the decentralization theorem. Lack of local capability has not been a major constraint though the record there is uneven. Capabilities vary considerably from one LGU to the next. Innovation has extended the productivity of revenue. Improvements in production efficiency could probably be gained by devolving additional services that are justified by the decentralization theorem, such as education and law enforcement. Greater attention to equitable and adequate pay, and to the career development paths of employees would probably yield improvements in efficiency. Effort should also be made to bring national agencies on board as supporters of LGU activities. An important problem is related to the shared resources that are supposed to go to LGUs. Inflation cuts into the IRA before revenues are delivered, shared revenue from natural resource exploitation is rarely forthcoming, and administrative decisions can cut the IRA to meet national objectives.

### 7.2 Allocative efficiency

To gain improvements in allocative efficiency, LGUs reallocate resources from what had been provided by centralized government toward provision of a set of goods and services that better match local demand and local willingness to pay. In section 6.1.4 we compared expenditures before and after the Code went into effect. Comparisons adjusted for inflation and population change asked the question "did LGUs maintain the same level of real per capita expenditures after the Code went into effect as had been provide by the central government before the Code was implemented?" That exercise revealed reallocations did occur.

Reallocations of resources among expenditure categories have not been large. In most cases LGUs received IRA allocations that were adequate to cover the costs of the services that were devolved on them. However, in about 25 percent of cases where the IRA was less than the cost of devolved services, little or no room for reallocation existed. Even in those LGUs that had "excess revenues" from the IRA, little reallocation occurred. This may be in some measure inertia, since it takes some time for LGUs to test the limits of their abilities and the limits of the law. Nevertheless, upon devolution some LGUs have reallocated resources to better match local preferences. There are many ways in which reallocation has occurred, and while the list of reallocations may seem rather *ad hoc*, the point remains that LGUs now have greater flexibility in satisfying local demand and they have exercised that power.

- Education is apparently a preferred spending activity. All empirical tests that we are aware of show that when resources become available, education expenditures take a disproportionate share. Manasan (1998) shows empirically that among cities with net gains from decentralization, there is a high propensity to spend on education.[28] This is a particularly important finding because most education expenditures have not been devolved on LGUs. Only school maintenance and construction (in part) have been devolved. The Special Education Fund is designed to provide resources for this purpose. Anecdotal evidence indicates that even so, some LGUs spend SEF resources on teacher salaries, a responsibility of the Department of Education.[29] A strong local preference for education is corroborated by the observation that despite free universal education in the Philippines, private schools are very important. Finally, the fact that LGUs have a strong preference for reallocating resources toward education is a signal that greater educational responsibilities should be devolved to LGUs. Doing so would better satisfy the decentralization theorem and provide new opportunities for improved allocative efficiency. While LGU spending patterns reveal a preference for education their spending on it remains small. LGU educational expenditures were only 7.5 percent of total education expenditures in 1997 and amounted to only 0.3 percent of GNP (up from half that share in 1992).

- Reallocations also favored housing and general public services.
- Social sector spending appears to be a low priority for LGUs. Statistical analysis shows that among provincial governments which had higher than average net transfers via the IRA, the marginal propensity to spend on the social sectors was lower than it was for other provinces.[30] Spending on social welfare experienced a decline in real per capita terms.
- Agriculture-related expenditures declined in relative and absolute terms.
- Health expenditures also declined in real per capita terms, but there are some unique characteristics associated with health care, and the picture is still unclear as to why spending declined. The main cost of health care is in operating tertiary care hospitals. Responsibility for these hospitals is devolved on the provinces. However, no special recognition of the cost of operating hospitals is reflected in the IRA formula, and the tax base of provinces is more limited than it is for cities and municipalities. Therefore, a relative decline in health expenditures may be due to inadequate transfers to provinces for covering the costs of operating hospitals. The decline may not be due to local tastes and preferences that place greater value on non-health care items.
- At the barangay level resources are spent in ways which were unavailable before devolution. Prior to devolution barangays had little or no revenue. Furthermore, while the Code allocates revenue to the barangays, it does not assign specific expenditure responsibilities to them.

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[28]Cities with net losses from decentralization have devolved expenditure responsibilities that exceed their IRA. Since LGUs cannot run a deficit and since their local sources of revenue are very limited it is not possible for those with net losses to increase educational expenditures and still meet other mandates.

[29] School construction is an area where expenditure responsibility is not clear. The Department of Education (DECS) builds schools across the country. LGUs are also supposed to build schools out of the SEF. But spending from the SEF is under the control of local school boards, which tend to exploit the lack of clarity. They allow the DECS to build schools and use the SEF for other purposes, including payment of scholarships for local students to attend higher education, topping off teacher salaries or providing extra benefits for valued teachers.

[30] It is important to distinguish between LGUs that have higher and lower than average IRA revenues. Those that have lower than average revenues have little or no flexibility in reallocating their budgets. They are likely not able to meet even their most basic expenditure responsibilities. Indeed, the data show that these LGUs were not able to maintain the real value of social sector expenditures after devolution. Higher than average IRA recipients have choices that are not available to their other colleagues. These LGUs are able to meet their basic responsibilities and then choose how to spend any additional revenues.

Therefore almost any provision of new services by barangays represents an allocative improvement for they are free to spend as they see fit.[31] For example, almost all barangays now have day care centers. Before few did. It is common for barangays to appoint "law enforcement" personnel, who are usually volunteers who may receive a small honorarium for their services. While these people may be abusive in some circumstances they generally offer the only protection against serious crime that barangay residents have.

- Pineda (1998) has shown that cities with already high performance on health indicators (such as infant mortality and deaths related to childbirth) funds were reallocated away from increased health expenditures and toward areas of higher priority. She also finds that the opposite occurred among LGUs with poor performance on health indicators.
- After typhoon Loleng struck several areas in eastern Philippines in 1998, LGUs were able to act immediately to mitigate the impact by tapping the 5 percent disaster set-aside in their IRA allocations. This represents a great allocative improvement compared to the days when a disaster declaration and funds had to come from the national government before disaster mitigation could begin.
- Environmental projects have attracted attention and resources from LGUs reallocating their priorities. Puerto Princesa City has been particularly successful in a project to become the country's "cleanest and greenest" city. The municipality of Bustos has become a model for solid waste disposal. Many other examples could be cited. Most of the environmental projects are particularly efficient in that they usually combine a modest amount of revenue with participation by the private sector, NGOs and common citizens to meet some environmental target. Public funds are thereby leveraged more than they are in other kinds of activities.

### 7.2.1 Allocative efficiency: detecting local demand

To best allocate expenditures to match local demand, some mechanism to detect local demand must exist. LGU officials encounter a number of indicators of local demand for LGU services.

- Since the late 1980s democracy seems to have taken hold. Local elections are held regularly and are reported to be free and fair. Furthermore, electoral terms are rather short (normally three years) and the political figure who is unresponsive to local demands has a burden to bear in frequent elections.
- NGOs have been given an official role to play on local governing councils. The Code specifies that 25 percent of the voting power on local development councils and other bodies must be held by NGOs and Peoples Organizations.[32] Original friction between NGOs and local elected officials that followed devolution seems to be abating, and a productive working relationship is developing. Miller (1999) elaborates on this relationship.

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[31] This assumes that barangay officials are responding to the "will of the people" and are accountable to them. In most cases barangays are very small. Officials are not only elected, but they are very visible to the electorate. The probability of significant corruption at the barangay level is probably low. However, many barangay captains come from business or family elites who may manage their barangay in their own interest.

[32] Peoples organizations are formed by any group of people who have common interests, such as fishermen, rice farmers and small businesses of all types.

- Special purpose groups to provide input on issues of interest to them are formed frequently and are apparently welcomed into decision-making circles at the LGU level. These groups may form in an *ad hoc* manner around special issues such as disaster recovery, environmental questions and so forth.

In general local governments in the Philippines have many mechanisms to connect decision-making to policy. Furthermore, LGU officials have an incentive to respond to local demand.

### 7.2.2 Allocative efficiency: local revenue

It is important for allocative efficiency that LGUs raise significant revenue from their own sources. In this way local citizens "feel" the cost of public expenditures because some of it comes out of their own pockets. On the margin increases in expenditure imply increased local taxes. Faced with this, local citizens are best able to match marginal costs and benefits, thereby enabling them to approach greater allocation efficiency. Section 6.1.2 above provides figures showing the evolution of the structure of LGU local source revenue.

<u>Local Real Property Tax (RPT)</u>: The real property tax was intended to become the main source of own revenue for the LGUs but it has not turned out to be. The RPT is set at 1 percent of assessed value (called the "basic" RPT). However, another 1 percent is taxed and is earmarked for a "Special Education Fund" (SEF). Technically, these two taxes are separate though they are administered by the same procedures and are collected together.[33] As a source of revenue to LGUs the RPT suffers from important problems such as:

- Out-of-date property assessments. Manasan (1998) shows that cities' RPT systems have not been able to capture the positive effects on land values that urbanization normally entails. Other jurisdictions have not re-assessed properties in line with current market values.
- Only a partial inventory of real property. Some unrecorded property may be owned by local elites who want their holdings "off the record."
- Confused titles among property owners and border disputes among provinces and municipalities.
- Antiquated administrative tools.
- Tax amnesties, occasionally decreed by provincial governors, may encourage non-compliance.
- High collection costs due in part to small property size, low tax per property and difficult topography. These problems were shown for a select group of LGUs in Table 12. Manasan (1995) examined a set of 14 provinces and found that in 11 of them the cost of collection exceeded the revenue collected. (Table 11).
- Incentive problems.

Incentives to collect the tax are weak. RPT collection is a responsibility of the municipalities, but the municipalities are required to share the revenue with the provinces and barangays. Of the

[33]Though they are supposed to be collected together this may not occur. If a taxpayer is unable to pay the entire tax composed of the "basic tax" (1 percent) plus the SEF tax (1 percent), partial payments are accepted. Partial payments go first to pay the basic tax and anything in excess of this goes toward the SEF.

basic tax revenues collected, the municipality is required to deliver 35 percent to the province and 25 percent to the barangays. It keeps only 40 percent for itself. Furthermore, assuming the SEF portion of the tax is collected, all of it goes into the SEF, which is under the control of local school boards. Thus, of revenue collected by the municipality as little as 20 percent goes into its own coffers, unearmarked. Yet the Municipalities bear most of the cost of administration and collection.

RPT delinquencies are a great problem. Despite sufficient powers under the law to enforce collection from delinquent accounts, the collection rate has rarely exceeded 60 percent in the period between 1983 and 1997 (Table 10). Worse, the collection efficiency for the RPT declined from 56.7 percent in the pre-Code regime to 53.8 percent in the post-Code regime. Moreover, it is also shown that the RPT collection efficiency in both provinces and cities deteriorated during the period under study, with former suffering a bigger cut than the latter.

If problems were solved, the RPT has the potential to be a significant revenue source. RPT revenue is determined by the tax rate, the collection rate (the ratio of actual tax revenue to tax liability), the assessment ratio (the ratio of the assessed value to the fair market value established for RPT purposes) and the assessment efficiency (the ratio of the fair market value to the true market value). Based on counterfactual simulations, Manasan (1995) shows that if the collection rate is increased to 100 percent (from 50 percent) while other variables are held constant, RPT revenue will increase by 100 percent. Doubling the statutory rate will yield the same proportional increment in RPT revenues. On the other hand, if *ceteris paribus* the assessment efficiency is increased to 1 (from 0.33),[34] RPT revenue will increase by 200 percent. In like manner, if both the collection rate and the assessment efficiency are raised to 1, RPT revenue will increase by 500 percent. These results imply that: (1) correction of the undervaluation problem by adjusting the schedule of fair market value to the level of the true market value has the greatest potential in increasing RPT revenue;[35] (2) improvements in collection efficiency will lead to substantial growth in RPT revenue quite independently of the undervaluation problem; and (3) RPT tax capacity, given present tax rates and assessment levels, is not negligible.

Department of Finance guidelines instruct local assessors to use: (1) sales data from the Register of Deeds; (2) sworn statements of real property owners filed every time a general revaluation is undertaken or when a transfer or construction is made; and (3) expert opinion of real estate agents and professional appraisers. The first two of these sources are inherently subject to under-estimation. However, local assessors rely on them, often to the exclusion of the third, because somehow the latter is viewed as "unofficial" and therefore, indefensible if challenged either by local taxpayers and/or local elected officials. In this regard, the use of zonal values of real property (which the Bureau of Internal Revenue uses as the basis for the capital gains tax) should be considered as an alternative source of information in computing the fair market value for RPT purposes.

[34] This figure is based Manasan, 1992, and Tan, 1993. With the recent revisions in the schedule of fair market values, anecdotal evidence suggests that the assessment efficiency has improved somewhat to 0.5.

[35] This result still holds even with the improvement in the assessment efficiency in recent years.

Problems with other local taxes are also apparent. The IRA is negatively related to local business tax effort in statistical studies. Local user fees rarely cover the cost services provided. As a result, there has been little increase in the share of total revenues originating from local taxes despite the assignment of new taxation power to LGUs. On average, before devolution (1985-91) LGU own revenue was 4.9 percent of total government revenue; after devolution this increased by only 0.8 percent to 5.7 percent (1992-96) (Manasan, 1998). The increase in the proportion of local revenues in total revenues occurred entirely in cities. Own revenues for cities have averaged 2.1 percent of total government revenues prior to 1991 and 2.9 percent since. For other units of local government there has been no proportional increase in own revenue generation.

### 7.2.3 Allocative efficiency: accountability

There is a consensus that democracy has taken hold and strengthened in the Philippines, and this is the main source of accountability for local officials. Reports are that there is an increasing frequency of contested elections at the local level rather than the simple transfer of power within dynasties. As mentioned above, there is increased involvement of NGOs and peoples organizations in local spending/taxing decisions. Furthermore, that involvement has becomemore well accepted by local officials than was the case in the immediate post-Code era. (see Miller, 1998). From al reports, accountability of LGU officials to their constituents has improved and in most cases is already at acceptable levels.

In summary, allocative efficiency has probably improved, but any improvements have been slight. The mix of expenditures has changed slightly since 1992, and LGUs' preferences are better reflected in expenditure patterns. Many have used innovative ways to leverage revenue by mustering local, in-kind resources. However, changes have been small. Many LGUs are not able to meet devolved expenditure responsibilities and create new expenditures out of the IRA. Very few LGUs have exploited their own sources of revenue. Yet, all face hard budget constraints. Ultimately, allocative efficiency will be improved for those jurisdictions that improve upon revenue generation through local taxes such as the property and business taxes.

## 7.3 Fiscal efficiency

Fiscal efficiency requires that there be correspondence between taxes paid and services received and that the intergovernmental grant structure be non-distorting of local tastes and preferences. It also requires that LGU spending and fiscal management be consistent with national macro-economic stability.

### 7.3.1 Fiscal efficiency: local taxes correspond to services

There are primarily three local taxes, the local business tax, the RPT and user fees.[36] Of these we have already discussed the RPT, which is not effective in bringing taxation to the level where local

[36] The Philippines does not have a problem of shared taxes that one often finds elsewhere. In other countries it is common for the central government to share revenues with LGUs from national taxes collected within the LGUs territory. This raises questions of which taxes are best and what sharing arrangement is reasonable. See Guess, Loehr and Martinez (1997)

services are found. This is probably not a function of FD *per se*, but a result of an underdeveloped property tax system. User charges too have been found to be defective. Manasan's (1998) examination of user fees levied by cities found that in no case did the fees cover the cost of services provided by cities. Surveys by the GOLD project have found the same. This is understandable for services such as hospital care which is widely considered a "public good," but it is not so acceptable for services such as public markets, slaughterhouses, etc. This leaves the local business tax as the only effective connection between local services and local taxation. If the RPT costs more to collect than it yields, then it is a net drain on resources, and if user fees do not cover the cost of service, then the LBT is the only one in the LGU arsenal of taxes that makes the required connection. Unfortunately, Manasan (1998) has also shown that the IRA formula acts as a disincentive to collect the LBT.

### 7.3.2 Fiscal Efficiency: non-distorting inter-governmental grant structure

It is possible that the IRA formula delivers revenues to the LGUs in a way that acts as a disincentive to local tax efforts. The IRA is by far the largest source of revenue to most LGUs. Indeed, the IRA more than covers the cost of devolved expenditures for most LGUs. In addition, if local revenues come at considerable cost to LGUs then it is logical that LGUs would rely upon the IRA for revenue and not exert a vigorous local tax effort. The empirical evidence seems to support this view. Manasan (1998) and Llanto, et al. (1998), show via regression analysis that there is a negative correlation between local tax effort and IRA per capita. Manasan (1995) shows that while intergovernmental transfers had a neutral effect on local revenue performance in 1985,[37] it substituted for local tax revenue in all levels of local governments in 1992 and 1993. While the relationship between per capita local tax revenue and per capita IRA is weak for provinces (where a P1 increase in per capita IRA leads to a P0.01 reduction in per capita local tax revenue in 1992-1993), it is not negligible in the case of cities (where a P1 increase in per capita IRA is predicted to lead to a P0.43 decrease in per capita local tax revenue) and municipalities (where a P1 increase in per capita IRA results in a P0.09 decline in per capita local tax revenue). Moreover, Manasan (1998) reports similar results for per capita local business tax revenue of cities in 1994 and 1995.

One is tempted to recommend that the IRA be altered to better provide incentives for local tax effort and perhaps to meet other objectives as well. However, there are advantages to the IRA as it exists:

- The formula is simple and easily understood. There is no need for sophisticated analysis to determine an LGU's share nor are any parts of it up for negotiation.
- The IRA formula was the result of prolonged political activity and negotiation. Attempts to change it could begin a process that results in a far less acceptable formula.
- IRA distributions are equalizing. Simple regression between per capita IRA and per capita personal income show that these two variables are negatively related with one another in both the pre-Code and post-Code years. This relationship was highly significant in 1996 (Table 11). Thus, the results suggest that the Code has had a mild equalizing effect. However, the

[37] The relationship between per capita IRA and per capita revenue of all major local taxes is either negative and insignificant or positive and significant in 1985.

magnitude of the response is low (a 10 percent increase in per capita personal income results in a 3.4 percent decrease in per capita IRA (Alonzo 1998). Most countries that have implemented fiscal decentralization find that they must install explicit equalizing features in their grant structures. The Philippines has apparently come upon this result without having that intention.[38]

Despite these advantages, there remains a mismatch between the financial resources and the expenditure responsibilities that have been transferred to LGUs. The increase in the IRA share of some LGUs is not enough to finance the functions devolved to them; others have received resources beyond the expenditures devolved on them. In 1993 the per capita net resource transfer (i.e., per capita 1993 IRA, less per capita 1992 IRA, less per capita cost of devolved functions, adjusted for inflation) was negative in 37 out the 66 provinces for which data were available. This figure was down to three in 1994. However, the situation is likely to have worsened since then given the increasing number of unfunded mandates.

Unfunded mandates have not been effectively dealt with in the Philippines. No extra transfers are available to cover unfunded mandates, nor is there a system of equalization grants to assist poor or otherwise disadvantaged LGUs to serve devolved expenditure responsibilities. Examples of unfunded mandates include:

- The "Magna Carta for Health Workers," a law passed in 1994, mandated sharply increased salaries for health workers. The increased salary burden was phased in, with the Department of Health picking up part of the increase in the first three years. However, LGUs now must bear the full cost without having received compensating revenues.
- LGUs face salary scales that are imposed by the central government. The salary structure is very rigid and all-pervasive. LGUs have little flexibility to adjust salaries outside the official schedule and any salary increase imposed at the center becomes a new unfunded mandate.
- Provincial governments have the mandate to provide hospital services, but receive inadequate funds to do so. This is perhaps one of the largest unfunded mandates built into the Code. Hospital services are particularly costly, yet the Code and the IRA do not recognize this. In addition provinces are not assigned the right to levy a business tax as are cities and municipalities. It is possible that the IRA formula could be greatly improved by allocating specific funds to provinces for hospitals before allocating the rest of IRA funds across all LGUs.

Anecdotal information indicates that as a solution to unfunded mandates, LGUs simply ignore them. In the cases of salary increases laws have included language that allows LGUs to not pay the salaries if funds are not available. However, this puts LGUs in a very inflexible position, since there is an automatic claim on additional resources by employees who are not paid up to the legal

[38] Recall that the IRA formula does not have "need" explicit in it. The formula is based only on equal sharing, land area and population. What is probably happening is that low per capita income areas are rural and have large land areas. Thus the equal sharing and land area components in the formula distributes relatively large amounts of resources to these relatively poor areas. The precise impact of the IRA on redistribution has not been studied systematically.

scale. This not only reduces an LGU's flexibility to reallocate resources but is bad for worker morale and may act as a disincentive for a vigorous local tax effort.

### 7.3.3 Fiscal efficiency: no destabilization of the macro economy

The total amount of resources commanded by LGUs is small. Collectively, they spend about 3.5 percent of GNP, receiving about 2.3 percent of GNP via the IRA. Furthermore, borrowing by LGUs is very limited (see GOLD, 1996, p. 6). The Code allows LGUs to borrow, but they are limited in the debt service burden that they can take on. Debt service is limited to 20 percent of their "regular income," which is taken to mean 20 percent of their IRA. Yet LGUs are not allowed to pledge their IRA as security for loans. There has been a way around these requirements because LGUs can arrange an IRA "intercept." By keeping their IRA deposits with banks that have extended them credit, those banks can be allowed to "intercept" IRA income to cover debt service before it is released to the LGUs. However, the Code only allows LGUs to keep deposits with state-owned banks, so this facility is not available with private banks. Furthermore, the requirement to keep deposits only with state-owned banks does not allow LGUs to develop the relationships with private banks that may lead to private financing for LGUs. The only lenders in effect are state-owned banks, and almost all of that comes from the Municipal Development Fund. (See Llanto, et al., 1998, for details)

The Code prohibits LGUs from operating at a deficit. Balanced budgets are required. Even in cases where unfunded mandates are imposed, LGUs cannot run deficits and balance their accounts by simply ignoring mandates. The balanced budget constraint is a double one. Since there is no substantial credit available to them, most LGUs could not run a deficit if they wanted to.

There is very little chance that the fiscal decentralization scheme in the Philippines could precipitate significant macro-economic instability. Budget constraints are hard and resources committed to LGUs are small. Without a practical way to borrow, LGUs cannot get into the debt problems that have caused difficulties in other countries. Also, in the Philippines the problem of central government "bail-outs" for LGUs that overspent and over borrowed simply does not arise.

In summary, fiscal efficiency could be improved upon. Local taxes already exist that would make the correspondence between taxation and the economic activity that is supported by local expenditures. But local taxes are ineffective in making this connection. Macroeconomic stability does not seem threatened at all by the form of fiscal decentralization practiced in the Philippines. LGUs cannot run operating deficits and are extremely limited in their ability to borrow. Thus, the instabillity observed in other countries, where national governments implicitly (and in some cases explicitly) guarantee local debt, is not present in the Philippines.

## SECTION 8: SUMMARY AND CONCLUSIONS

This study is a follow-on to work begun earlier in the CAER project on measuring and assessing the effect of fiscal decentralization in developing countries. In CAER II Discussion Paper #3 (*Guess, Loehr and Martinez, Fiscal Decentralization: A Methodology for Case Studies, March*

*1997)* a general format for doing case studies was created. That paper did not include any case studies. It was comprehensive, dealing with all of the most important economic factors affecting the fiscal decentralization process. This paper does two things. First it recommends an approach to assessing the economic efficiency impacts of fiscal decentralization and second, it does a brief case study of the Philippines to illustrate the method.

The methods recommended recognize the difficulty of doing economic analysis in developing countries. Data are scarce and other information incomplete. Nevertheless, assessment of what are basically economic factors requires that observations and analysis follow the logic of economic theory, but purely quantitative methods cannot be used exclusively. Judgement is required. Just as economic theory organizes empirical investigation, it also organizes the way we think about problems. If information about those problems is judgmental and anecdotal, theory organizes whatever the available information is. It is normal in developing countries (indeed, almost everywhere) that information is incomplete. In the end, economic theory can be used much as rules of evidence are used in a court case, to build a picture of "the preponderance of the evidence," even where some of the evidence is anecdotal.

The objectives of this project are:

- to recommend methods for evaluating changes in economic efficiency associated with fiscal decentralization;
- to recommend specific measures of efficiency for important activities;
- to provide suggestions about a few key dimensions related to efficiency changes so that evaluations can be done with a minimum expenditure of resources;
- to recommend measurement and monitoring methods that AID and other donors might find useful in developing and evaluating FD projects;
- to demonstrate how these methods can be used to evaluate FD in comparative analysis. For this purpose we perform a brief case study of fiscal decentralization in the Philippines; and
- to build on the work begun in Discussion Paper #3, thereby creating an increasingly comprehensive treatment for the evaluation of FD.

The main effect of FD is to provide improved resource allocation and therefore improved economic efficiency. Improved efficiency is the main positive economic factor to come from FD. Efficiency gains rest on the presumption that local governments are much better in identifying and fulfilling the needs of households, since they are closer to them, and in mobilizing and using local resources to pay for goods and services having purely local impacts. Improved efficiency is defined as getting greater consumer (taxpayer) welfare from fixed resources. Not all gains in consumer welfare can be measured as increases in output. When FD is successful, resources have been reallocated so that marginal costs of publicly provided goods and services more closely match marginal benefits. Relative allocation questions come into play.

We recommend that attention be focused on three dimensions of economic efficiency:

- <u>Production efficiency</u> refers to the cost at which goods and services are produced. Production efficiency is improved if resources are reallocated within expenditure categories to get the most output from whatever resources are available. There are three important dimensions to assessing production efficiency. First, costs in providing local services should be compared to the costs of a "standard package" of services. Second, structural changes associated with likely production efficiency changes should be detailed. Third, local capabilities to provide services should be assessed.

- Allocative efficiency matches public spending with consumer preferences. Allocative efficiency changes as resources are reallocated between expenditure categories to better match the needs of local constituencies. There are three dimensions that we recommend for evaluation. First, there must be some means for local officials to detect what local demand is. Normally this involves some form of democratic government, though other arrangements may work too. Second, goods and services supplied by LGUs should be financed in significant part by local taxes and LGUs should confront a "hard" budget constraint. Third, LGU officials must be accountable for their actions.
- Fiscal efficiency deals with the ways in which LGUs are financed. Three dimensions are of importance. First, local taxes should connect taxpayers with services they receive as much as possible. Second, systems of grants and transfers from the central government should provide adequate finance without overly distorting local preferences. Third, the system of finance for LGUs should not threaten national macroeconomic stability.

A case study of fiscal decentralization in the Philippines was conducted in late 1998 to illustrate the application of the case study methods suggested here. The Philippines case is particularly useful for illustrative purposes. The passage in 1991 of a new Local Government Code represents a major shift in local governance in the Philippines. The Code is aimed at providing the framework in support of increased local autonomy. Because the Code has been fully in force since 1993, the Philippines case represents a fairly neat "before and after" picture.

Data and institutional arrangements describing fiscal decentralization in the Philippines are presented in Section 6. This sets the stage for examining the three kinds of efficiency changes.

Production efficiency has probably been improved as a result of fiscal decentralization. However, efficiency improvements have probably been modest since LGUs only spend about 3.7 percent of GDP (in 1997) compared to about 1.9 percent in the immediate pre-Code period. Cost comparisons seem to favor LGUs over national agencies. Though the information on costs at the local level is normally anecdotal, all anecdotes point in the direction of cost advantages for LGUs. Structural changes, with a few exceptions, follow guidelines offered by economic theory:

- Expenditure assignments are clear (though national agencies often interfere).
- Expenditure assignments satisfy the "decentralization theorem" (though basic education and local law enforcement could be assigned to LGUs).
- Revenues from the Internal Revenue Allotment are clear (though they are depreciated by inflation before being disbursed to LGUs).
- Natural resource-related revenues are assigned to LGUs but no mechanism exists to determine what these are.
- Local tax assignments are reasonable (though tax administration is a problem).

- Constraints on LGU spending are few (though there are a few important constraints related to devolved personnel and mandated pay scales).

Lack of local capability has not been a major constraint though the record there is uneven. Capabilities vary considerably from one LGU to the next. Innovation has extended the productivity of revenue. Improvements in production efficiency could probably be gained by devolving additional services to local governments such as education and law enforcement.

Allocative efficiency has probably improved, but any improvements have been slight. The mix of expenditures has changed slightly since 1992, and LGUs' preferences are better reflected in expenditure patterns. Changes in expenditure patterns have favored education, housing and general public services. Relatively, expenditures have shifted away from social welfare and agriculture-related expenditures. There seems to have been a shift away from health care spending too, but there are questions whether this reflects public preferences or an idiosyncrasy of the Philippine system. Improvements in democratic institutions in the post-Code period have allowed LGUs to better serve their constituencies while remaining accountable to them. Local revenue generation has been a major problem of allocative efficiency:

- Real property tax collections are lagging other economic improvements. Collection costs are high, incentives to collect are weak and delinquencies are not dealt with effectively.
- The business tax is only useful where there is significant business base, which occurs manly in cities. It is not as useful in rural areas and has not been assigned to provinces.
- User fees rarely cover costs.
- Local tax revenues shown in the data are a kind of illusion. Costs of collection usually exceed revenue collected.

Fiscal efficiency is probably adequate but could be improved upon. Local taxes already exist that would make the correspondence between taxation and the economic activity that is supported by local expenditures. LGUs have been assigned the "right kind" of taxes and have avoided the "srong kind." But local taxes are ineffective in making this connection because they have been so poorly administered. The formula granting revenues to local governments has some defects, but over all does a reasonable job. The Internal Revenue Allotment is the only grant to LGUs and it covers the cost of most devolved expenditures. The IRA probably acts as a disincentive to collect local taxes. LGUs cannot run operating deficits and are extremely limited in their ability to borrow. Macroeconomic stability does not seem threatened at all by the form of fiscal decentralization practiced in the Philippines.

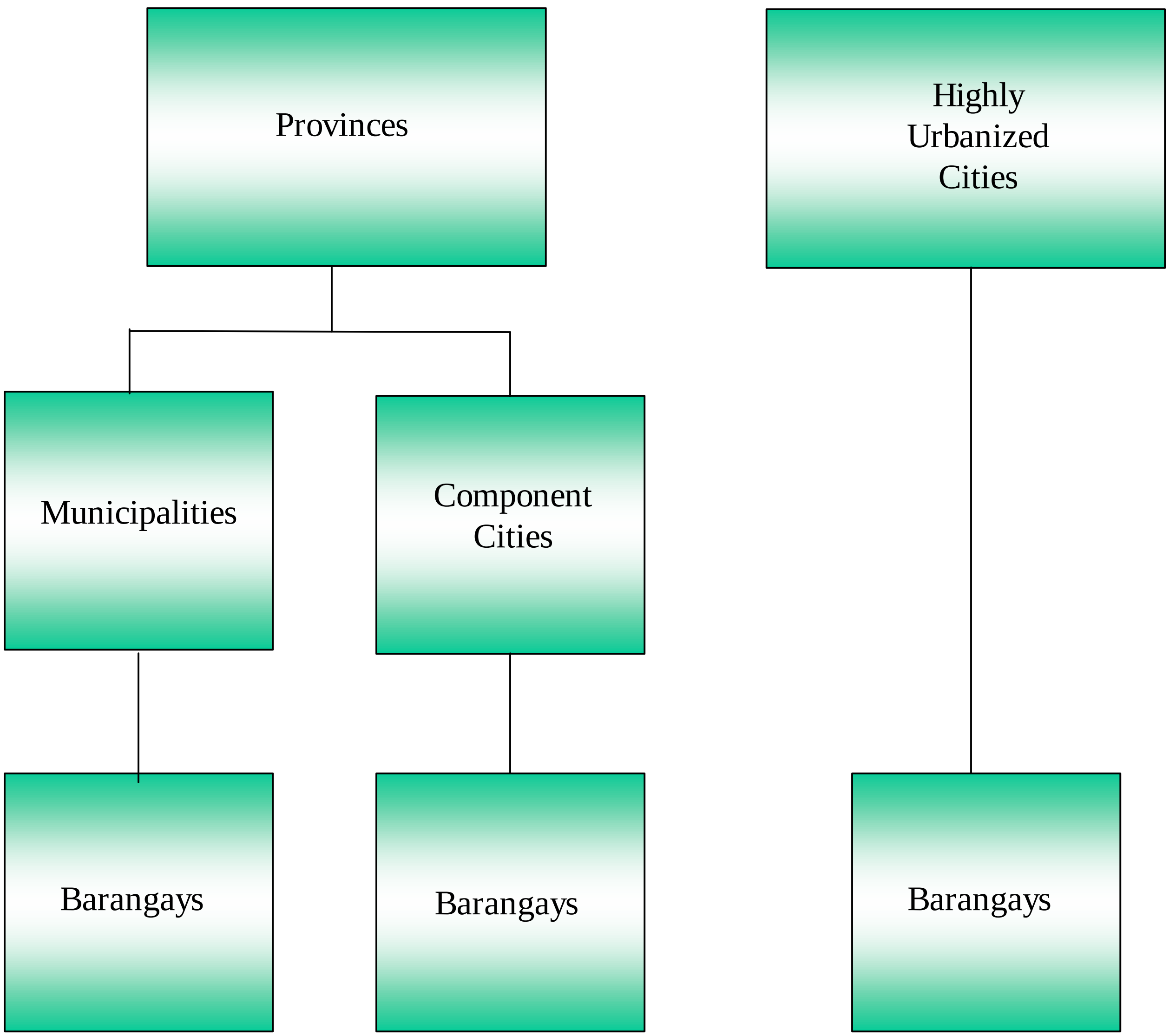
The evidence available indicates that the Philippines has benefited from fiscal decentralization. There is little or no evidence that LGUs incur higher costs for given items when compared to the central government and structural changes support improved efficiency at the local level. Improvements in democracy in the Philippines support better allocation of public revenues among competing uses. But democracy is imperfect and there are localities where family fiefs dominate local politics. There is no indication that macro-stability has been threatened by fiscal decentralization. Fiscal decentralization in the Philippines still has a way to go. Compared to the initial post-Code period (as described by Miller, 1997) trends are encouraging. Fiscal decentralization, which seemed tenuous in 1994, now seems irreversible. Problems for fiscal decentralization in the Philippines include:

- Greater attention to equitable and adequate pay, and to the career development paths of employees would probably yield improvements in production efficiency by assuring LGUs of the skills that they need.
- National agencies have not fully yielded responsibility to LGUs for devolved services. Effort should be made to bring national agencies on board as supporters of LGU activities.
- An important problem is related to the shared resources that are supposed to go to LGUs. Inflation cuts into the IRA before revenues are delivered, shared revenue from natural resource exploitation is rarely forthcoming, and administrative decisions can cut the IRA to meet national objectives. Commitment should be made to deliver to LGUs the revenue that is mandated for them by the Code.
- Many LGUs are not able to meet devolved expenditure responsibilities and create new expenditures out of the IRA. Provinces are particularly hard pressed to meet expenditure responsibilities.
- Very few LGUs have exploited their own sources of revenue. Yet, all face hard budget constraints. Ultimately, allocative efficiency will be improved for those jurisdictions that improve upon revenue generation through local taxes such as the property and business taxes.

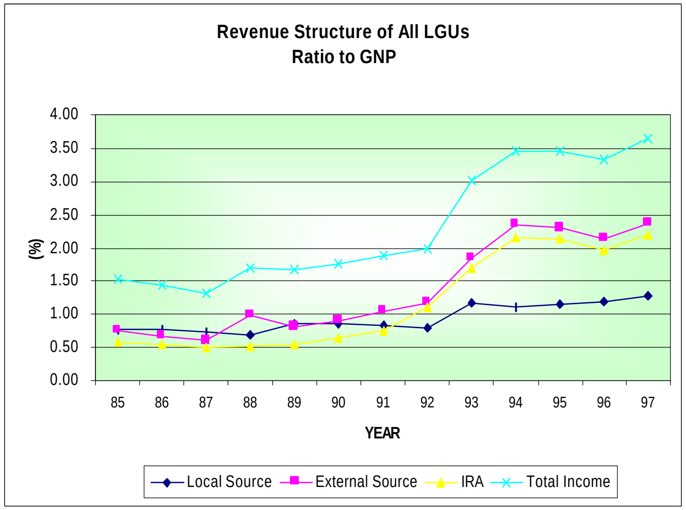
Our examination of the Philippines' case illustrates that by examining a few key factors associated with the economic efficiency impacts associated with FD, one can gain considerable insight into the FD process. As in other developing countries, data are scarce in the Philippines and in many ways "conclusions" must be supported by opinion and anecdotal information. But economic theory offers us an approach to analyzing fiscal decentralization and a format for organizing the anecdotes. By examining information surrounding important theoretical aspects of fiscal decentralization strengths and weaknesses become apparent. Furthermore, by examining these factors one can begin to compare experience across countries. Surely, all countries have their own unique national character, and the fiscal decentralization process will be conditioned by that character. Nevertheless, all countries engaged in fiscal decentralization (or changes in it) are at least in part seeking improvements in economic efficiency. Assessments of the fiscal decentralization process must address questions of fiscal decentralization's impact on the three dimensions of economic efficiency discussed above -- production, allocative and fiscal efficiency.

# APPENDIX A: FIGURES

**Figure 1**
**Philippine Local Government Units**



# Figure 2
## Revenue Structure of All Local Governments (Ratio to GNP in Percent)
## 1985-1997

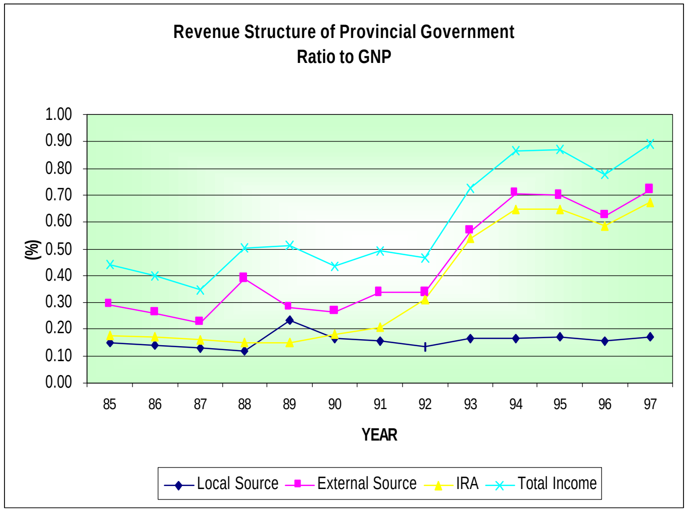



**Local Source**
Ave 85-91 0.80
Ave 92-97 1.23

**External Source**
Ave 85-91 0.86
Ave 92-97 2.25

**IRA**
Ave 85-91 0.61
Ave 92-97 2.08

**Total Income**
Ave 85-91 1.66
Ave 92-97 3.48

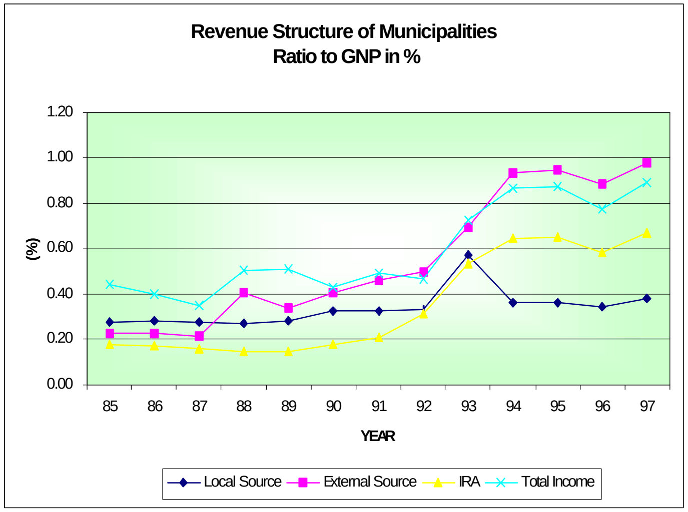



**Local Source**
Ave 85-91 0.16
Ave 92-97 0.17

**External Source**
Ave 85-91 0.30
Ave 92-97 0.67

**IRA**
Ave 85-91 0.17
Ave 92-97 0.63

**Total Income**
Ave 85-91 0.46
Ave 92-97 0.85

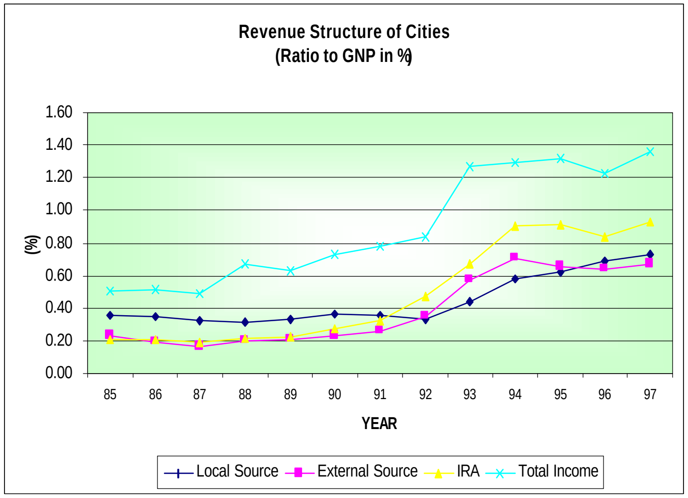



**Local Source**
Ave 85-91 0.30
Ave 92-97 0.42

**External Source**
Ave 85-91 0.35
Ave 92-97 0.92

**IRA**
Ave 85-91 0.25
Ave 92-97 0.87

**Total Income**
Ave 85-91 0.65
Ave 92-97 1.33



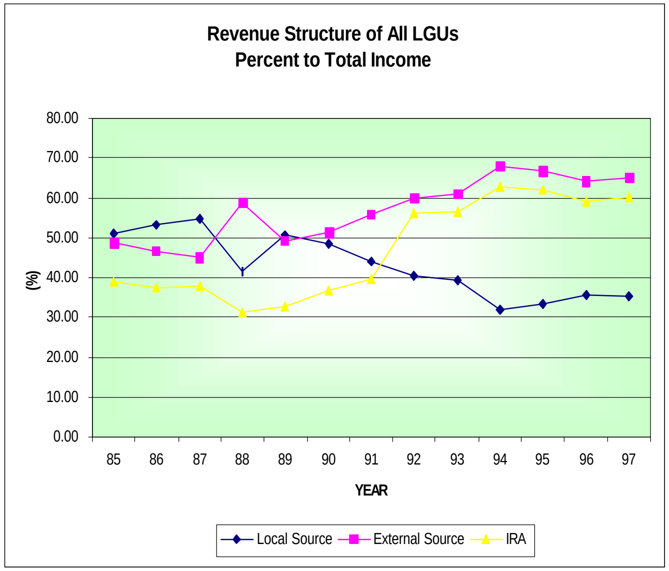

**Local Source**
Ave 85-91 0.34
Ave 92-97 0.64

**External Source**
Ave 85-91 0.22
Ave 92-97 0.66

**IRA**
Ave 85-91 0.18
Ave 92-97 0.58

**Total Income**
Ave 85-91 0.56
Ave 92-97 1.30

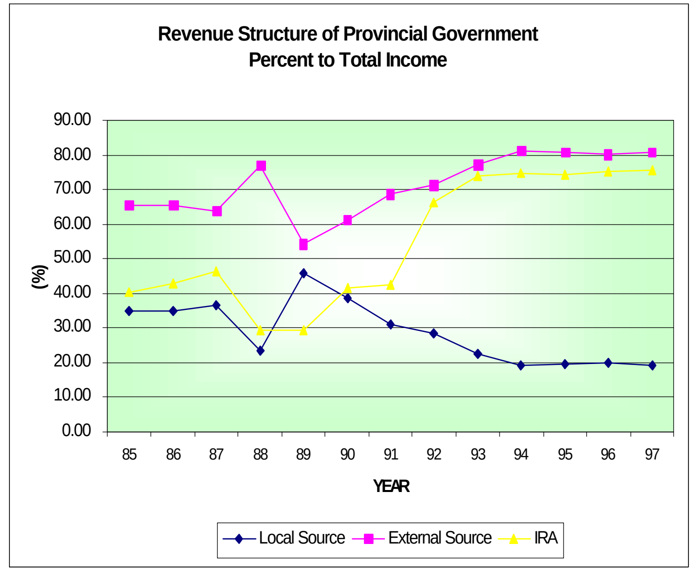
**Figure 3**
**Revenue Structure of All Local Governments (Ratio to Total Income in Percent)**
**1985-1997**




**Local Source**
Ave 85-91 48.04
Ave 92-97 35.28

**External Source**
Ave 85-91 51.96
Ave 92-97 64.72

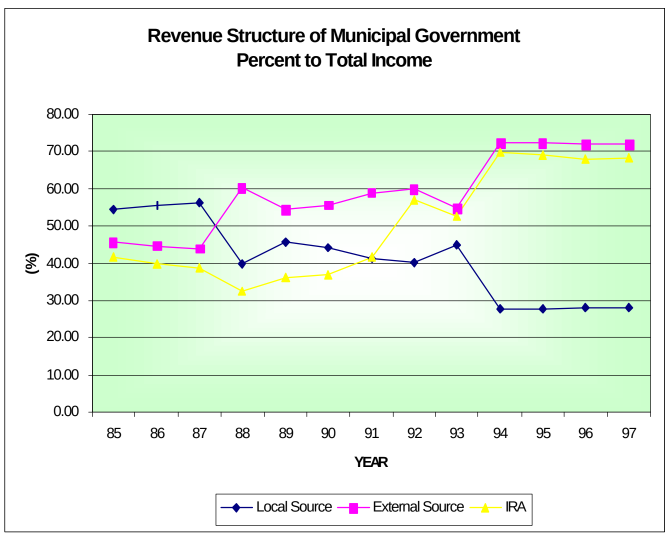
**IRA**
Ave 85-91 36.41
Ave 92-97 59.92




**Local Source**
Ave 85-91 34.90
Ave 92-97 20.46

**External Source**
Ave 85-91 65.10
Ave 92-97 79.54

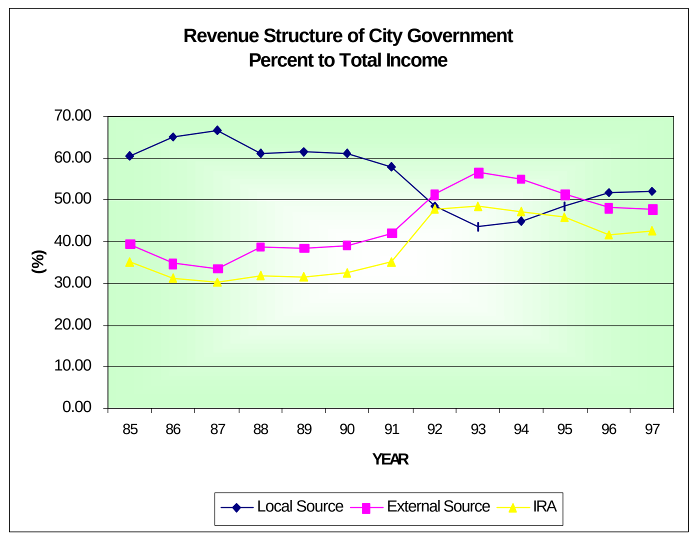
**IRA**
Ave 85-91 38.25
Ave 92-97 74.33




**Local Source**
Ave 85-91 45.77
Ave 92-97 31.29

**External Source**
Ave 85-91 54.23
Ave 92-97 68.71

**IRA**
Ave 85-91 38.17
Ave 92-97 65.54



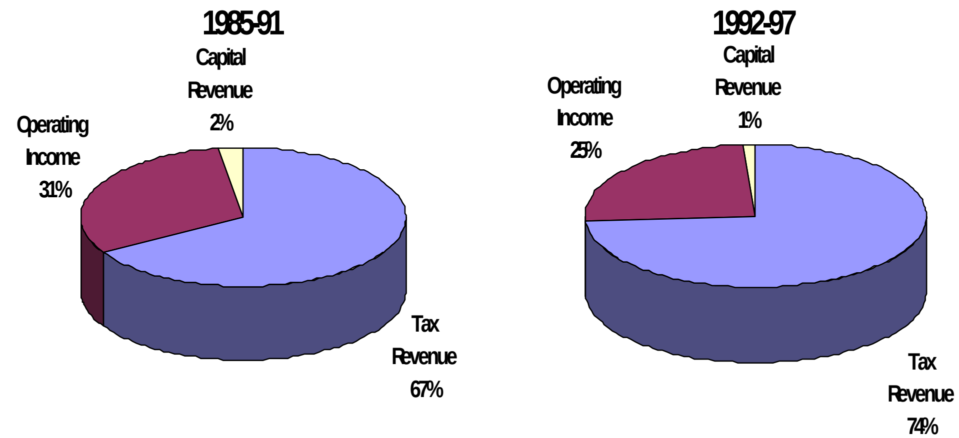

**Local Source**
Ave 85-91 61.36
Ave 92-97 49.05

**External Source**
Ave 85-91 38.64
Ave 92-97 50.95

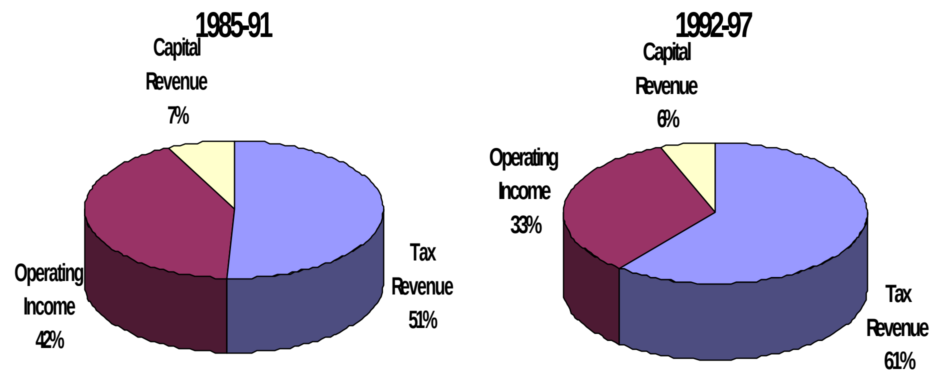
**IRA**
Ave 85-91 32.90
Ave 92-97 44.75

**Figure 4**
**Distribution of Local Source Revenues (in Percent)**

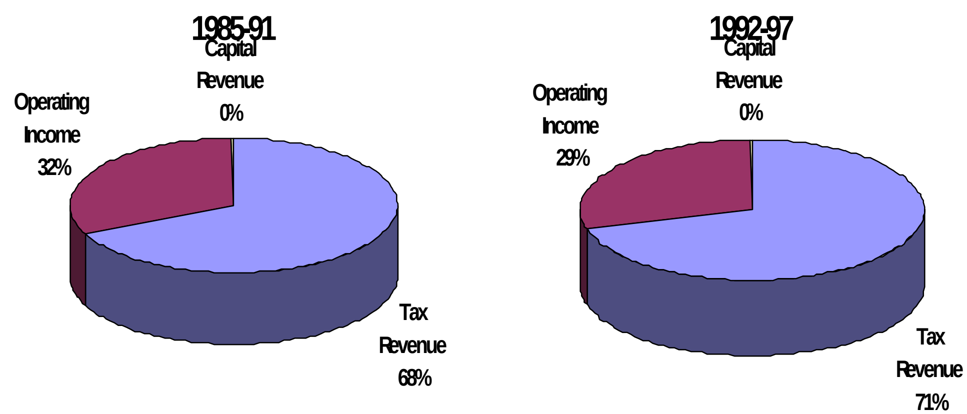
**All LGUs**




**PLGUs**




**MLGUs**




**CLGUs**

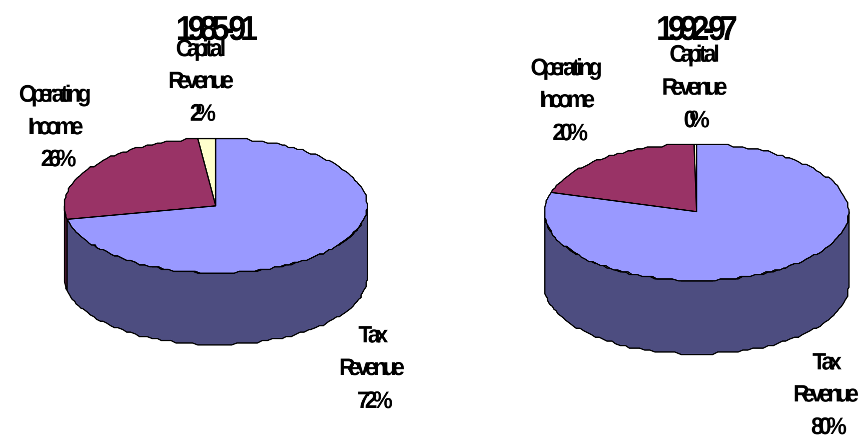
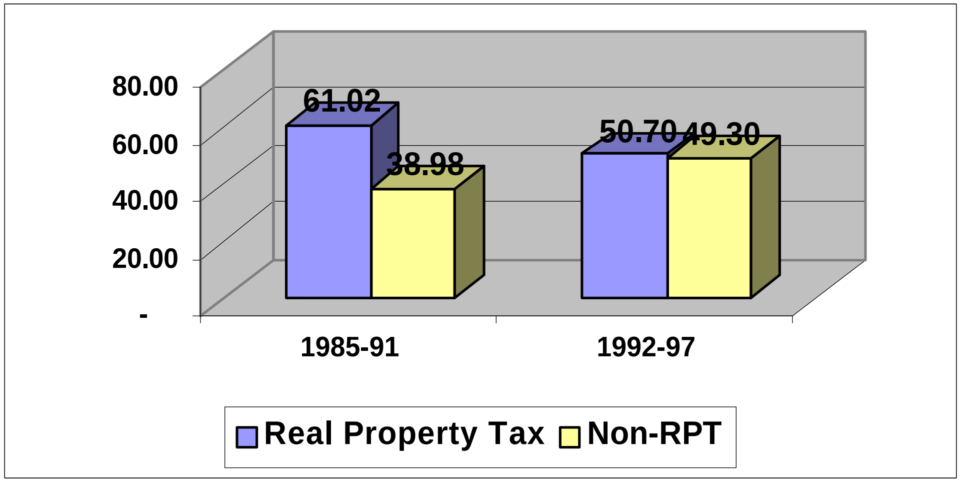
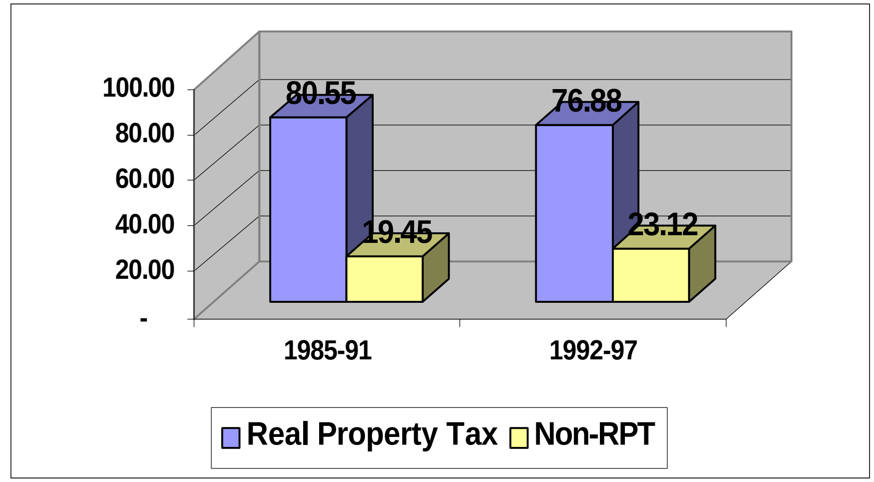


**Figure 5**
**Distribution of Local Taxes**

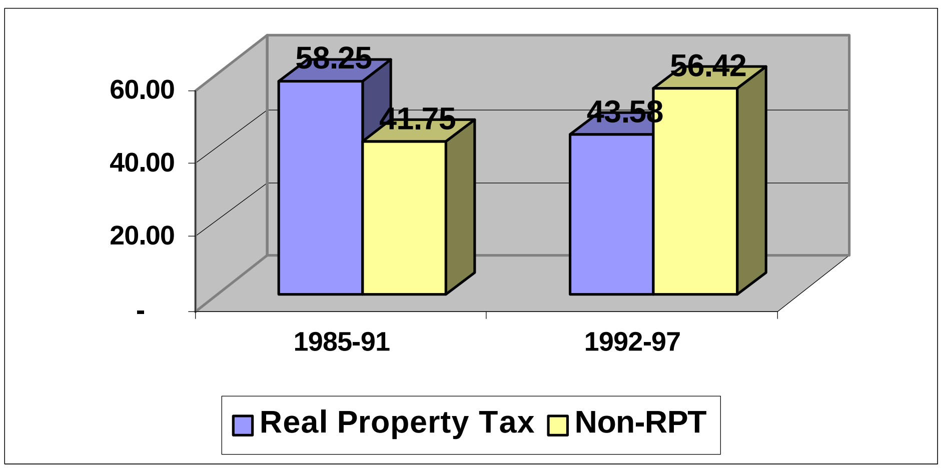
**All LGUs**



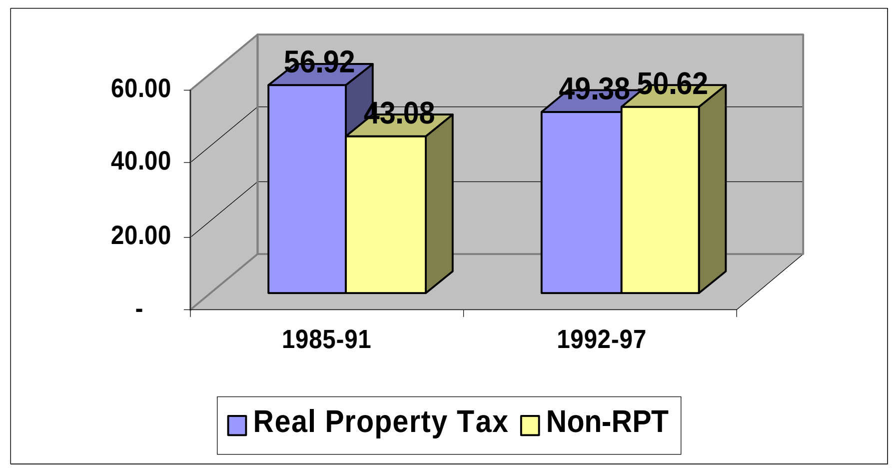

**PLGUs**



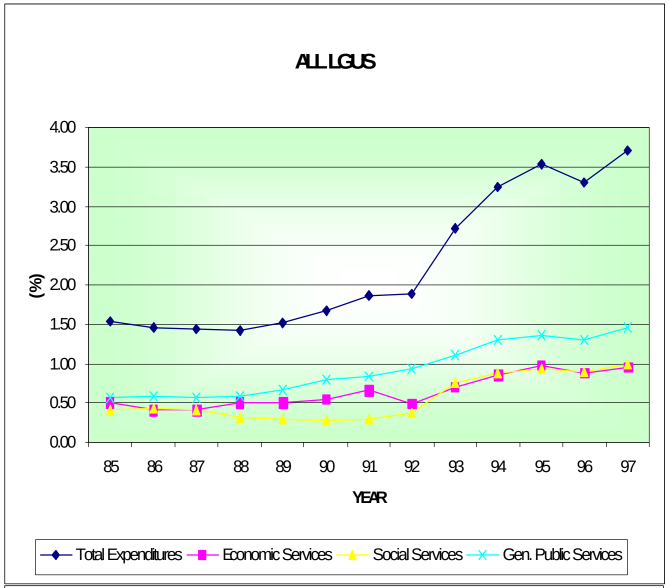

**MLGUs**




**CLGUs**



# Figure 6
## Ratio to GNP of Local Government Expenditures (in percent)
## 1985-1997

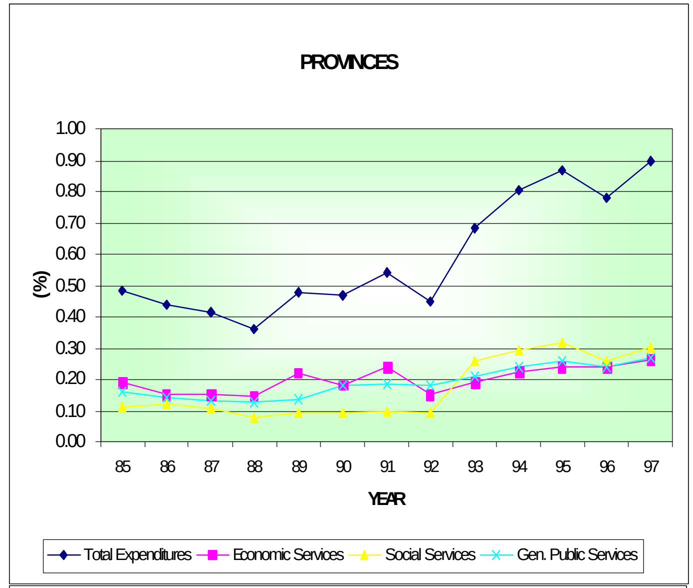



**Total Expenditures**
Ave 85-91 1.59
Ave 93-97 3.35

**Economic Services**
Ave 85-91 0.52
Ave 93-97 0.89

**Social Services**
Ave 85-91 0.33
Ave 93-97 0.90

**Gen. Public Services**
Ave 85-91 0.68
Ave 93-97 1.32

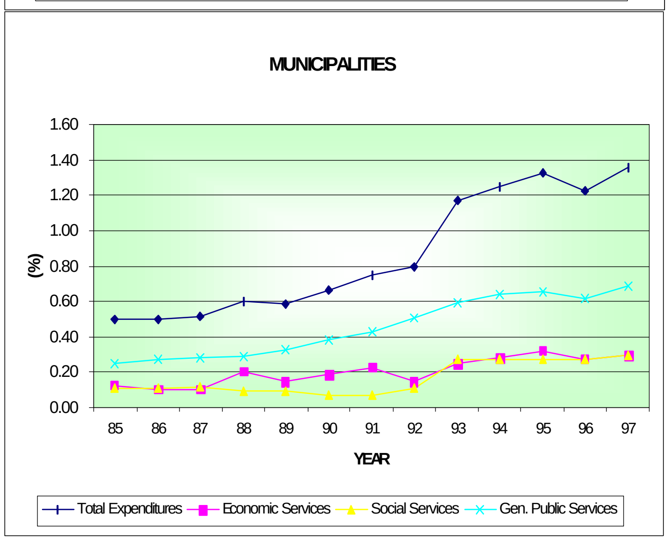



**Total Expenditures**
Ave 85-91 0.46
Ave 93-97 0.82

**Economic Services**
Ave 85-91 0.19
Ave 93-97 0.24

**Social Services**
Ave 85-91 0.10
Ave 93-97 0.29

**Gen. Public Services**
Ave 85-91 0.16
Ave 93-97 0.25

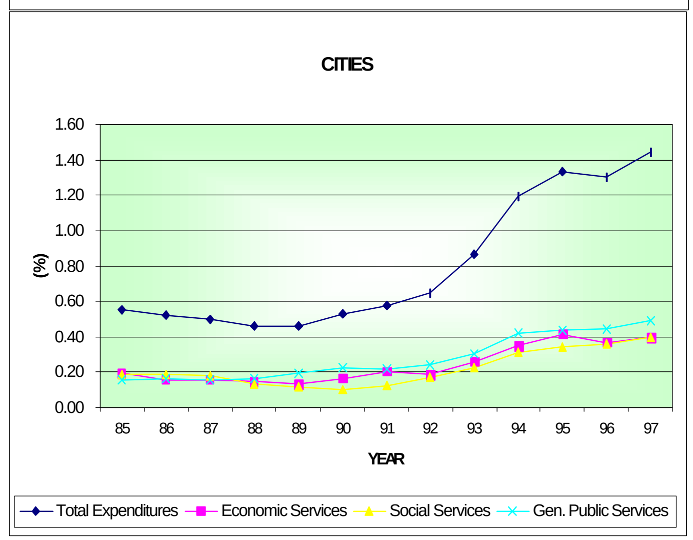



**Total Expenditures**
Ave 85-91 0.61
Ave 93-97 1.27

**Economic Services**
Ave 85-91 0.17
Ave 93-97 0.29

**Social Services**
Ave 85-91 0.09
Ave 93-97 0.28

**Gen. Public Services**
Ave 85-91 0.34
Ave 93-97 0.64



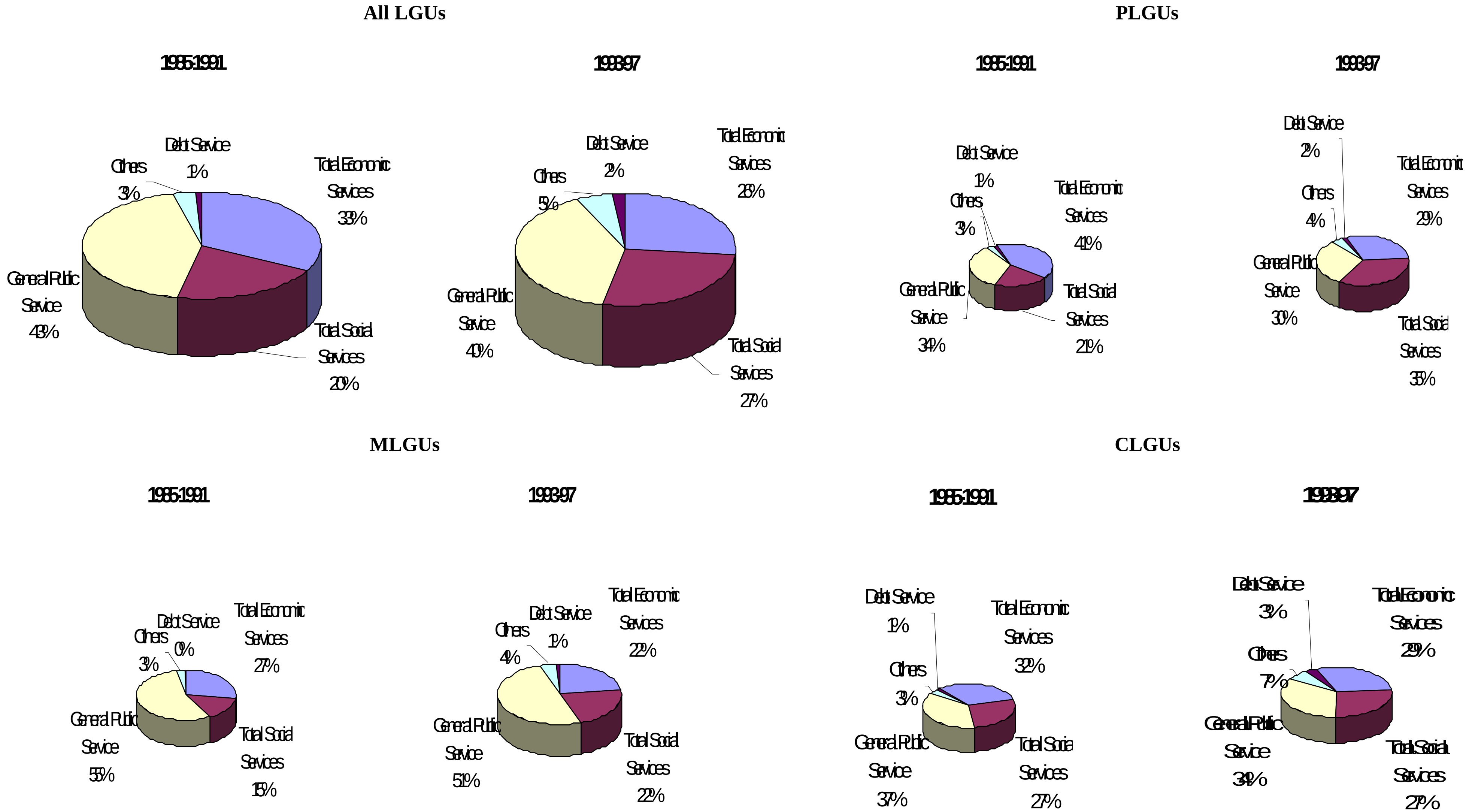

**Total Expenditures**
Ave 85-91 0.52
Ave 93-97 1.26

**Economic Services**
Ave 85-91 0.17
Ave 93-97 0.37

**Social Services**
Ave 85-91 0.14
Ave 93-97 0.34

**Gen. Public Services**
Ave 85-91 0.19
Ave 93-97 0.43

**Figure 7**
**Sectoral Distribution of Local Government Expenditures (in Percent)**



# APPENDIX B: TABLES

**Table 1**
**Devolved Functions of National Government Agencies***

| NGAs | FUNCTIONS |
|---|---|
| Department of Agrarian Reform | - land and home development improvement projects |
| Department of Agriculture | - agricultural and fishery extension services<br>- regulation of agricultural and fishery activity<br>- conduct of agricultural and fishery research activities<br>- procurement and distribution of certified seeds<br>- purchase, expansion and conservation of breeding stocks<br>- construction, repair and rehabilitation of water impounding services<br>- support to fishermen, including purchase of fishing nets and other materials |
| Department of Budget and Management | - local government budget officer services |
| Department of Environment and Natural Resources | - forest management services<br>- mine and geo-sciences services<br>- environmental management services<br>- reforestation projects<br>- integrated social forestry projects<br>- watershed rehabilitation projects |
| Department of Health | - extension of medical and health services through provincial health office, district, municipal and medicare community hospitals |

| NGAs | FUNCTIONS |
|---|---|
| | - purchase of drugs and medicines<br>- implementation of primary health care programs<br>- field health services<br>- aid to puericulture<br>- construction, repair, rehabilitation and renovation of provincial, district, municipal and medicare hospitals<br>- provision for the operation of 5-bed health infimaries |
| Department of Public Work and Highways | - repair and maintenance of infrastructure facilities<br>- water supply projects<br>- communal irrigation projects |
| Department of Social Welfare and Development | - implementation of community-based program for rebel returnees<br>- provision for the operation of a day-care center in every barangay<br>- provision for poverty alleviation in low-income municipalities and depressed urban barangays |
| Department of Tourism | - domestic tourism promotion<br>- tourism standard regulation |
| Department of Trade and Industry | - promotion and development of trade, industry and related institutional services |
| Department of Transportation and Communication | - telecommunication services<br>- transportation franchising and regulatory services |

| NGAs | FUNCTIONS |
|---|---|
| Cooperatives Development Authority | - promotion, development and regulation of cooperatives function<br>- cooperatives field operation function |
| Housing and Land Use Regulatory Board | - regulation of human settlement plans and programs function |
| Philippine Gamefowl Commission | - regulation and supervision of cockfighting function |

* In addition, functions and locally-funded projects of the Commission on Population, Fiber Industry Development Authority, National Agricultural Fishery Council, Livestock Development Council and National Meat Inspection Commission are also devolved.

**Table 2**
**Number of Devolved Personnel, 1992**

| DEPARTMENT/AGENCY | NUMBER OF PERSONNEL BEFORE DEVOLUTION | NUMBER OF DEVOLVED PERSONNEL | RATIO OF DEVOLVED PERSONNEL TO PRE-DEVOLUTION PERSONNEL % |
|---|---|---|---|
| Department of Agriculture | 29,638 | 17,673 | 59.63 |
| Office of the Secretary | 29,234 | 17,664 | 60.42 |
| National Meat Inspection Commission | 404 | 9 | 2.23 |
| Department of Budget and Management | 3,532 | 1,650 | 46.72 |
| Department of Environment and Natural Resources | 21,320 | 895 | 4.20 |
| Department of Health | 74,896 | 45,896 | 61.28 |
| Department of Social Welfare and Development | 6,932 | 4,144 | 59.78 |
| Other Executive Offices | 191 | 25 | 13.09 |
| Philippine Gamefowl Commission | 191 | 25 | 13.09 |
| Total | 136,509 | 70,283 | 51.49 |

Source: 1993 National Expenditure Program, Regional Coordination Staff

**Table 3**
**Agency Budgets and Devolution, 1992[1]**
**(in thousand pesos)**

| DEVOLVED AGENCY | BUDGET BEFORE DEVOLUTION | DEVOLVED BUDGET | RATIO OF DEVOLVED BUDGET TO PRE-DEVOLUTION BUDGET % |
|---|---|---|---|
| Department of Agrarian Reform | 1,842,374 | 9,389 | 0.51 |
| Department of Agriculture | 5,210,028 | 1,055,620 | 20.26 |
| Department of Budget and Management | 465,379 | 172,847 | 37.14 |
| Department of Environment and Natural Resources | 1,941,782 | 167,675 | 8.64 |
| Department of Health | 9,991,392 | 3,851,079 | 38.54 |
| Department of Public Works and Highways | 27,109,267 | 1,096,347 | 4.04 |
| Department of Social Welfare and Development | 1,320,708 | 866,420 | 65.60 |
| Department of Tourism | 207,721 | 2,753 | 1.33 |
| Department of Transportation and Communication | 7,563,929 | 97 | 0.00 |
| Philippine Gamefowl Commission | 15,208 | 8,705 | 57.24 |
| Total | 55,667,788 | 7,230,932 | 12.99 |

[1] Based on the 1992 Expenditure Program and incorporates full year impact of the functions/projects/activities devolved.
Captures only expenditures of devolving agencies (i.e., Office of the Secretary of Departments except for the Department of Agriculture which also includes the National Meat Inspection Commission).

Source: 1993 National Expenditure Program

**Table 4**
**Decentralization Ratios for All LGUs, 1985 - 1997**

| | RDR | EDR | MEDR | FAR |
|---|---|---|---|---|
| 1985 | 5.93 | 9.12 | 11.42 | 51.10 |
| 1986 | 5.50 | 6.92 | 9.06 | 52.90 |
| 1987 | 4.52 | 5.70 | 10.04 | 50.90 |
| 1988 | 4.67 | 6.21 | 10.48 | 49.20 |
| 1989 | 4.85 | 7.36 | 10.62 | 55.90 |
| 1990 | 4.87 | 6.75 | 11.21 | 51.40 |
| 1991 | 4.55 | 7.70 | 12.61 | 44.60 |
| 1992 | 4.35 | 18.98 | 14.26 | 42.14 |
| 1993 | 6.36 | 12.88 | 19.97 | 43.33 |
| 1994 | 5.41 | 15.09 | 21.87 | 34.00 |
| 1995 | 5.89 | 15.43 | 21.83 | 32.69 |
| 1996 | 6.20 | 16.01 | 21.00 | 35.95 |
| 1997 | 6.52 | 16.33 | 21.39 | 34.71 |
| Average | | | | |
| 1985-1991 | 4.86 | 7.04 | 11.00 | 51.60 |
| 1992-1997 | 5.82 | 14.74 | 20.54 | 36.66 |
| 1992-1994 | 5.41 | 12.56 | 19.10 | 38.80 |
| 1995-1997 | 6.23 | 15.92 | 21.41 | 34.52 |

Notes:
RDR = Ratio of LGU revenue from local sources to general government revenue
EDR = Ratio of LGU expenditure to general government expenditure
MEDR = Ratio of LGU expenditure net of debt service to general government expenditure net of debt service
FAR = Ratio of LGU revenue from local sources to LGU expenditure

**Table 5**
**Financial Autonomy Ratio of Different Levels of Local Governments, 1985 - 1997**

| | Provinces | Municipalities | Cities |
|---|---|---|---|
| 1985 | 31.79 | 55.19 | 64.23 |
| 1986 | 31.49 | 57.01 | 67.13 |
| 1987 | 30.73 | 53.45 | 65.03 |
| 1988 | 32.31 | 44.65 | 68.61 |
| 1989 | 48.71 | 48.89 | 72.39 |
| 1990 | 36.02 | 48.63 | 68.45 |
| 1991 | 28.24 | 43.07 | 61.55 |
| 1992 | 29.72 | 41.98 | 50.98 |
| 1993 | 24.04 | 48.88 | 51.09 |
| 1994 | 20.51 | 28.90 | 48.29 |
| 1995 | 19.63 | 27.58 | 46.26 |
| 1996 | 19.23 | 28.40 | 52.58 |
| 1997 | 19.02 | 28.26 | 50.49 |
| Average | | | |
| 1985-1991 | 34.32 | 48.33 | 66.41 |
| 1992-1997 | 21.53 | 33.42 | 49.83 |
| 1992-1994 | 23.59 | 38.74 | 49.70 |
| 1995-1997 | 19.48 | 28.10 | 49.97 |

## Table 6.a
## Local Government Expenditure Before and After Devolution (in million pesos)

| | 1993 (actual) | | | | 1993 (levels that would have preserved 1991 levels in nominal terms) | | | | 1993 (levels that would have preserved 1991 levels in real terms) | | | | 1993 (levels that would have preserved 1991 levels in real per capita terms) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Provinces | Muni's | Cities | Total | Provinces | Muni's | Cities | Total | Provinces | Muni's | Cities | Total | Provinces | Muni's | Cities |
| GRAND TOTAL NET OF DEBT SERVICE | 40361.3 | 10167.0 | 17450.3 | 12744.0 | 29235.4 | 9581.6 | 12098.4 | 7555.4 | 33664.6 | 11033.2 | 13931.3 | 8700.1 | 35231.0 | 11546.6 | 14579.5 | 9104.9 |
| Total Economic Services | 10411.5 | 2827.5 | 3755.1 | 3829.0 | 9626.8 | 3438.7 | 3516.8 | 2671.3 | 11085.3 | 3959.7 | 4049.6 | 3076.0 | 11601.1 | 4144.0 | 4238.0 | 3219.1 |
| Agrarian Reform | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Agriculture | 1460.9 | 492.1 | 778.8 | 190.0 | 1332.5 | 479.4 | 684.2 | 169.0 | 1534.3 | 552.0 | 787.8 | 194.6 | 1605.7 | 577.7 | 824.5 | 203.6 |
| Natural Resources | 151.2 | 53.0 | 67.8 | 30.4 | 81.1 | 79.2 | 0.7 | 1.3 | 93.4 | 91.2 | 0.8 | 1.5 | 97.8 | 95.5 | 0.8 | 1.5 |
| Industry | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Trade | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tourism | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Power and Energy | 291.5 | 77.1 | 48.9 | 165.5 | 279.7 | 45.4 | 45.5 | 188.8 | 322.0 | 52.3 | 52.4 | 217.4 | 337.0 | 54.7 | 54.8 | 227.5 |
| Water Resources and Flood Control | 133.3 | 20.3 | 63.6 | 49.5 | 124.5 | 46.1 | 61.3 | 17.1 | 143.4 | 53.1 | 70.6 | 19.7 | 150.0 | 55.5 | 73.9 | 20.6 |
| Transportation and Communication | 178.8 | 51.6 | 42.4 | 84.8 | 266.8 | 98.5 | 140.3 | 27.9 | 307.2 | 113.5 | 161.6 | 32.1 | 321.5 | 118.7 | 169.1 | 33.6 |
| Other Economic Services | 8195.8 | 2133.4 | 2753.6 | 3308.9 | 7542.2 | 2690.2 | 2584.8 | 2267.3 | 8684.9 | 3097.7 | 2976.4 | 2610.8 | 9089.0 | 3241.9 | 3114.9 | 2732.2 |
| Total Social Services | 11394.0 | 3865.6 | 4121.7 | 3406.7 | 8111.6 | 3530.2 | 2852.1 | 1729.3 | 9340.5 | 4065.0 | 3284.2 | 1991.3 | 9775.1 | 4254.2 | 3437.0 | 2083.9 |
| Education | 2917.9 | 521.0 | 1331.8 | 1065.1 | 843.3 | 109.1 | 352.5 | 381.7 | 971.1 | 125.6 | 405.9 | 439.6 | 1016.2 | 131.5 | 424.8 | 460.0 |
| Health | 5233.0 | 2488.9 | 1746.5 | 997.6 | 4766.6 | 2471.0 | 1571.9 | 723.7 | 5488.7 | 2845.3 | 1810.1 | 833.3 | 5744.1 | 2977.7 | 1894.3 | 872.1 |
| Social Welfare, Labor & Other Soc. Serv | 871.6 | 112.2 | 482.5 | 277.0 | 1357.5 | 161.8 | 781.5 | 414.3 | 1563.2 | 186.3 | 899.8 | 477.1 | 1635.9 | 195.0 | 941.7 | 499.3 |
| Housing and Community Development | 2371.5 | 743.5 | 560.9 | 1067.1 | 1144.2 | 788.4 | 146.2 | 209.6 | 1317.5 | 907.8 | 168.4 | 241.3 | 1378.8 | 950.1 | 176.2 | 252.6 |
| General Public Services | 16630.9 | 3143.2 | 8908.2 | 4579.4 | 10686.9 | 2368.5 | 5365.4 | 2953.0 | 12306.0 | 2727.3 | 6178.3 | 3400.4 | 12878.6 | 2854.2 | 6465.7 | 3558.6 |
| Public Administration | 16327.5 | 3103.0 | 8804.9 | 4419.7 | 10593.3 | 2367.0 | 5341.6 | 2884.8 | 12198.2 | 2725.6 | 6150.8 | 3321.8 | 12765.7 | 2852.4 | 6437.0 | 3476.4 |
| Peace and Order | 303.4 | 40.3 | 103.3 | 159.8 | 93.6 | 1.5 | 23.8 | 68.2 | 107.8 | 1.8 | 27.5 | 78.6 | 112.8 | 1.9 | 28.7 | 82.2 |
| Others | 1924.9 | 330.8 | 665.2 | 928.9 | 810.1 | 244.2 | 364.1 | 201.9 | 932.8 | 281.2 | 419.2 | 232.5 | 976.2 | 294.2 | 438.7 | 243.3 |
| Defense | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Table 6.b
## Local Government Expenditure Before and After Devolution (in million pesos)

| | 1994 (actual) | | | | 1994 (levels that would have preserved 1991 levels in nominal terms) | | | | 1994 (levels that would have preserved 1991 levels in real terms) | | | | 1994 (levels that would have preserved 1991 levels in real per capita terms) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Total** | **Provinces** | **Muni's** | **Cities** | **Total** | **Provinces** | **Muni's** | **Cities** | **Total** | **Provinces** | **Muni's** | **Cities** | **Total** | **Provinces** | **Muni's** | **Cities** |
| GRAND TOTAL NET OF DEBT SERVICE | 55619.9 | 13782.6 | 21555.0 | 20282.3 | 29235.4 | 9581.6 | 12098.4 | 7555.4 | 33817.0 | 11106.0 | 14011.0 | 8700.1 | 35390.5 | 11622.7 | 14662.9 | 9104.9 |
| Total Economic Services | 14829.8 | 3872.7 | 4816.7 | 6140.4 | 9626.8 | 3438.7 | 3516.8 | 2671.3 | 11237.7 | 4032.5 | 4129.3 | 3076.0 | 11760.6 | 4220.1 | 4321.4 | 3219.1 |
| Agrarian Reform | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Agriculture | 1763.5 | 595.3 | 914.9 | 253.3 | 1332.5 | 479.4 | 684.2 | 169.0 | 1686.8 | 624.7 | 867.5 | 194.6 | 1765.3 | 653.8 | 907.9 | 203.6 |
| Natural Resources | 150.9 | 80.7 | 5.9 | 64.3 | 81.1 | 79.2 | 0.7 | 1.3 | 93.4 | 91.2 | 0.8 | 1.5 | 97.8 | 95.5 | 0.8 | 1.5 |
| Industry | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Trade | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tourism | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Power and Energy | 380.3 | 112.2 | 65.6 | 202.5 | 279.7 | 45.4 | 45.5 | 188.8 | 322.0 | 52.3 | 52.4 | 217.4 | 337.0 | 54.7 | 54.8 | 227.5 |
| Water Resources and Flood Control | 157.2 | 28.2 | 71.6 | 57.4 | 124.5 | 46.1 | 61.3 | 17.1 | 143.4 | 53.1 | 70.6 | 19.7 | 150.0 | 55.5 | 73.9 | 20.6 |
| Transportation and Communication | 7478.0 | 1865.5 | 1771.1 | 3841.4 | 266.8 | 98.5 | 140.3 | 27.9 | 307.2 | 113.5 | 161.6 | 32.1 | 321.5 | 118.7 | 169.1 | 33.6 |
| Other Economic Services | 4899.9 | 1190.8 | 1987.6 | 1721.5 | 7542.2 | 2690.2 | 2584.8 | 2267.3 | 8684.9 | 3097.7 | 2976.4 | 2610.8 | 9089.0 | 3241.9 | 3114.9 | 2732.2 |
| Total Social Services | 15206.0 | 5055.1 | 4720.1 | 5430.8 | 8111.6 | 3530.2 | 2852.1 | 1729.3 | 9340.5 | 4065.0 | 3284.2 | 1991.3 | 9775.1 | 4254.2 | 3437.0 | 2083.9 |
| Education | 4005.2 | 703.0 | 1355.2 | 1947.0 | 843.3 | 109.1 | 352.5 | 381.7 | 971.1 | 125.6 | 405.9 | 439.6 | 1016.2 | 131.5 | 424.8 | 460.0 |
| Health | 6534.7 | 3046.9 | 1980.3 | 1507.5 | 4766.6 | 2471.0 | 1571.9 | 723.7 | 5488.7 | 2845.3 | 1810.1 | 833.3 | 5744.1 | 2977.7 | 1894.3 | 872.1 |
| Social Welfare, Labor & Other Soc. Serv | 1254.9 | 230.2 | 607.4 | 417.3 | 1357.5 | 161.8 | 781.5 | 414.3 | 1563.2 | 186.3 | 899.8 | 477.1 | 1635.9 | 195.0 | 941.7 | 499.3 |
| Housing and Community Development | 3411.2 | 1075.0 | 777.2 | 1559.0 | 1144.2 | 788.4 | 146.2 | 209.6 | 1317.5 | 907.8 | 168.4 | 241.3 | 1378.8 | 950.1 | 176.2 | 252.6 |
| General Public Services | 22579.1 | 4153.7 | 11070.1 | 7355.3 | 10686.9 | 2368.5 | 5365.4 | 2953.0 | 12306.0 | 2727.3 | 6178.3 | 3400.4 | 12878.6 | 2854.2 | 6465.7 | 3558.6 |
| Public Administration | 22220.7 | 4100.7 | 10983.3 | 7136.7 | 10593.3 | 2367.0 | 5341.6 | 2884.8 | 12198.2 | 2725.6 | 6150.8 | 3321.8 | 12765.7 | 2852.4 | 6437.0 | 3476.4 |
| Peace and Order | 358.4 | 53.0 | 86.8 | 218.6 | 93.6 | 1.5 | 23.8 | 68.2 | 107.8 | 1.8 | 27.5 | 78.6 | 112.8 | 1.9 | 28.7 | 82.2 |
| Others | 3005.0 | 701.1 | 948.1 | 1355.8 | 810.1 | 244.2 | 364.1 | 201.9 | 932.8 | 281.2 | 419.2 | 232.5 | 976.2 | 294.2 | 438.7 | 243.3 |
| Defense | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Table 7
## Percent Distribution of NG and LGU Expenditures, by Type of Government

| Sectors | 1992 | | | | | | 1994 | | | | | | 1997 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TOTAL | NG | LOCAL | Prov. | Mun. | Cities | TOTAL | NG | LOCAL | Prov. | Mun. | Cities | TOTAL | NG | LOCAL | Prov. | Mun. | Cities |
| GRAND TOTAL | 100.00 | 91.02 | 8.98 | 2.14 | 3.78 | 3.07 | 100.00 | 84.91 | 15.09 | 3.74 | 5.80 | 5.55 | 100.00 | 83.07 | 16.93 | 4.12 | 6.20 | 6.61 |
| Total Economic Services | 100.00 | 88.92 | 11.08 | 3.47 | 3.39 | 4.22 | 100.00 | 82.88 | 17.12 | 4.47 | 5.56 | 7.09 | 100.00 | 81.28 | 18.72 | 5.16 | 5.81 | 7.75 |
| Agrarian Reform | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Agriculture | 100.00 | 97.31 | 2.69 | 1.60 | 0.17 | 0.92 | 100.00 | 84.57 | 15.43 | 5.21 | 8.00 | 2.22 | 100.00 | 89.21 | 10.79 | 3.98 | 5.25 | 1.56 |
| Natural Resources | 100.00 | 98.81 | 1.19 | 0.11 | 0.23 | 0.85 | 100.00 | 96.60 | 3.40 | 1.82 | 0.13 | 1.45 | 100.00 | 95.29 | 4.71 | 1.14 | 0.19 | 3.39 |
| Industry | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Trade | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tourism | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Power and Energy | 100.00 | 94.91 | 5.09 | 2.15 | 2.14 | 0.80 | 100.00 | 94.07 | 5.93 | 1.75 | 1.02 | 3.16 | 100.00 | 83.43 | 16.57 | 4.19 | 2.51 | 9.87 |
| Water Resources Devel./ Flood Control | 100.00 | 92.28 | 7.72 | 0.95 | 4.46 | 2.31 | 100.00 | 83.24 | 16.76 | 3.01 | 7.64 | 6.12 | 100.00 | 80.54 | 19.46 | 2.10 | 12.37 | 5.00 |
| Transportation and Communication | 100.00 | 99.77 | 0.23 | 0.07 | 0.12 | 0.03 | 100.00 | 84.51 | 15.49 | 3.87 | 3.67 | 7.96 | 100.00 | 99.65 | 0.35 | 0.08 | 0.16 | 0.11 |
| Other Economic Services | 100.00 | 7.73 | 92.27 | 27.95 | 28.40 | 35.93 | 100.00 | 52.30 | 47.70 | 11.59 | 19.35 | 16.76 | 100.00 | 20.42 | 79.58 | 21.26 | 23.07 | 35.25 |
| Total Social Services | 100.00 | 90.70 | 9.30 | 2.28 | 2.70 | 4.32 | 100.00 | 79.40 | 20.60 | 6.85 | 6.39 | 7.36 | 100.00 | 82.85 | 17.15 | 5.27 | 5.08 | 6.80 |
| Education | 100.00 | 94.65 | 5.35 | 0.70 | 2.23 | 2.41 | 100.00 | 91.72 | 8.28 | 1.45 | 2.80 | 4.02 | 100.00 | 92.46 | 7.54 | 1.49 | 1.68 | 4.37 |
| Health | 100.00 | 89.38 | 10.62 | 1.84 | 2.10 | 6.68 | 100.00 | 52.87 | 47.13 | 21.98 | 14.28 | 10.87 | 100.00 | 53.10 | 46.90 | 21.33 | 14.67 | 10.90 |
| Soc. Services, Labor & Employment & Other social services | 100.00 | 88.65 | 11.35 | 2.00 | 2.59 | 6.75 | 100.00 | 81.76 | 18.24 | 3.35 | 8.83 | 6.07 | 100.00 | 86.51 | 13.49 | 2.91 | 6.03 | 4.55 |
| Housing and Community Development | 100.00 | 18.92 | 81.08 | 39.00 | 16.23 | 25.85 | 100.00 | 27.20 | 72.80 | 22.94 | 16.59 | 33.27 | 100.00 | 37.48 | 62.52 | 9.09 | 19.34 | 34.08 |
| General Public Service | 100.00 | 72.97 | 27.03 | 5.20 | 14.77 | 7.07 | 100.00 | 66.89 | 33.11 | 6.09 | 16.24 | 10.79 | 100.00 | 65.77 | 34.23 | 6.36 | 16.20 | 11.66 |
| Public Administration | 100.00 | 65.76 | 34.24 | 6.64 | 18.79 | 8.81 | 100.00 | 59.99 | 40.01 | 7.38 | 19.77 | 12.85 | 100.00 | 57.53 | 42.47 | 7.97 | 20.19 | 14.32 |
| Peace and Order | 100.00 | 98.50 | 1.50 | 0.11 | 0.52 | 0.87 | 100.00 | 97.16 | 2.84 | 0.42 | 0.69 | 1.73 | 100.00 | 98.30 | 1.70 | 0.03 | 0.46 | 1.21 |
| Others | 100.00 | 0.00 | 100.00 | 28.16 | 30.90 | 40.94 | 100.00 | 0.00 | 100.00 | 23.27 | 31.58 | 45.15 | 100.00 | 0.00 | 100.00 | 20.32 | 27.40 | 52.27 |
| Defense | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Debt Service | 100.00 | 99.80 | 0.20 | 0.05 | 0.04 | 0.12 | 100.00 | 99.40 | 0.60 | 0.14 | 0.08 | 0.37 | 100.00 | 98.06 | 1.94 | 0.39 | 0.40 | 1.15 |

## Table 8
## Ratio to GNP in Percent

| Sectors | 1992 | | | | | | 1994 | | | | | | 1997 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TOTAL | NG | LOCAL | Prov. | Mun. | Cities | TOTAL | NG | LOCAL | Prov. | Mun. | Cities | TOTAL | NG | LOCAL | Prov. | Mun. | Cities |
| GRAND TOTAL | 21.03 | 19.15 | 1.89 | 0.45 | 0.79 | 0.64 | 21.49 | 18.25 | 3.24 | 0.80 | 1.25 | 1.19 | 21.78 | 18.09 | 3.69 | 0.90 | 1.35 | 1.44 |
| Total Economic Services | 4.35 | 3.87 | 0.48 | 0.15 | 0.15 | 0.18 | 4.99 | 4.14 | 0.85 | 0.22 | 0.28 | 0.35 | 5.13 | 4.17 | 0.96 | 0.26 | 0.30 | 0.40 |
| Agrarian Reform | 0.13 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 |
| Agriculture | 0.69 | 0.67 | 0.02 | 0.01 | 0.00 | 0.01 | 0.66 | 0.56 | 0.10 | 0.03 | 0.05 | 0.01 | 1.01 | 0.91 | 0.11 | 0.04 | 0.05 | 0.02 |
| Natural Resources | 0.24 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.26 | 0.25 | 0.01 | 0.00 | 0.00 | 0.00 | 0.38 | 0.36 | 0.02 | 0.00 | 0.00 | 0.01 |
| Industry | 0.11 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 |
| Trade | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tourism | 0.02 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| Power and Energy | 0.18 | 0.17 | 0.01 | 0.00 | 0.00 | 0.00 | 0.37 | 0.35 | 0.02 | 0.01 | 0.00 | 0.01 | 0.12 | 0.10 | 0.02 | 0.00 | 0.00 | 0.01 |
| Water Resources Devel./Flood Control | 0.07 | 0.07 | 0.01 | 0.00 | 0.00 | 0.00 | 0.05 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.06 | 0.05 | 0.01 | 0.00 | 0.01 | 0.00 |
| Transportation and Communication | 2.41 | 2.40 | 0.01 | 0.00 | 0.00 | 0.00 | 2.78 | 2.35 | 0.43 | 0.11 | 0.10 | 0.22 | 2.23 | 2.22 | 0.01 | 0.00 | 0.00 | 0.00 |
| Other Economic Services | 0.48 | 0.04 | 0.44 | 0.13 | 0.14 | 0.17 | 0.59 | 0.31 | 0.28 | 0.07 | 0.11 | 0.10 | 1.00 | 0.20 | 0.79 | 0.21 | 0.23 | 0.35 |
| Total Social Services | 4.04 | 3.67 | 0.38 | 0.09 | 0.11 | 0.17 | 4.25 | 3.38 | 0.88 | 0.29 | 0.27 | 0.31 | 5.77 | 4.78 | 0.99 | 0.30 | 0.29 | 0.39 |
| Education | 2.84 | 2.69 | 0.15 | 0.02 | 0.06 | 0.07 | 2.79 | 2.56 | 0.23 | 0.04 | 0.08 | 0.11 | 3.95 | 3.65 | 0.30 | 0.06 | 0.07 | 0.17 |
| Health | 0.77 | 0.69 | 0.08 | 0.01 | 0.02 | 0.05 | 0.80 | 0.42 | 0.38 | 0.18 | 0.11 | 0.09 | 0.96 | 0.51 | 0.45 | 0.20 | 0.14 | 0.10 |
| Social Services, Labor & Employ. & Other social services | 0.29 | 0.26 | 0.03 | 0.01 | 0.01 | 0.02 | 0.40 | 0.32 | 0.07 | 0.01 | 0.03 | 0.02 | 0.61 | 0.53 | 0.08 | 0.02 | 0.04 | 0.03 |
| Housing and Community Devel. | 0.13 | 0.03 | 0.11 | 0.05 | 0.02 | 0.03 | 0.27 | 0.07 | 0.20 | 0.06 | 0.04 | 0.09 | 0.26 | 0.10 | 0.16 | 0.02 | 0.05 | 0.09 |
| General Public Service | 3.45 | 2.52 | 0.93 | 0.18 | 0.51 | 0.24 | 3.93 | 2.63 | 1.30 | 0.24 | 0.64 | 0.42 | 4.24 | 2.79 | 1.45 | 0.27 | 0.69 | 0.49 |
| Public Administration | 2.69 | 1.77 | 0.92 | 0.18 | 0.51 | 0.24 | 3.20 | 1.92 | 1.28 | 0.24 | 0.63 | 0.41 | 3.38 | 1.94 | 1.44 | 0.27 | 0.68 | 0.48 |
| Peace and Order | 0.76 | 0.75 | 0.01 | 0.00 | 0.00 | 0.01 | 0.73 | 0.71 | 0.02 | 0.00 | 0.00 | 0.01 | 0.86 | 0.84 | 0.01 | 0.00 | 0.00 | 0.01 |
| Others | 0.08 | 0.00 | 0.08 | 0.02 | 0.03 | 0.03 | 0.17 | 0.00 | 0.17 | 0.04 | 0.05 | 0.08 | 0.19 | 0.00 | 0.19 | 0.04 | 0.05 | 0.10 |
| Defense | 1.21 | 1.21 | 0.00 | 0.00 | 0.00 | 0.00 | 1.31 | 1.31 | 0.00 | 0.00 | 0.00 | 0.00 | 1.46 | 1.46 | 0.00 | 0.00 | 0.00 | 0.00 |
| Debt Service | 7.90 | 7.88 | 0.02 | 0.00 | 0.00 | 0.01 | 6.85 | 6.81 | 0.04 | 0.01 | 0.01 | 0.03 | 5.00 | 4.90 | 0.10 | 0.02 | 0.02 | 0.06 |

## Table 9
## Buoyancy Coefficient of Locally Generated LGU Revenues, 1983 - 1997

| | 1983-1991 [a] | | | 1992-1997 [b] | | |
|---|---|---|---|---|---|---|
| | **Total [c]** | **Rate [d]** | **Base [e]** | **Total [c]** | **Rate [d]** | **Base [e]** |
| ***ALL LGU's*** | | | | | | |
| RPT | 0.88 | 1.22 | 0.72 | 2.27 | 1.19 | 1.92 |
| Other Taxes | 0.91 | 0.92 | 0.99 | 2.90 | 2.86 | 1.02 |
| Tax Revenues | 0.89 | | | 2.55 | | |
| Non-Tax Revenues [f] | 1.01 | | | 1.88 | | |
| Local Source Revenues | 0.97 | | | 2.33 | | |
| ***PROVINCES*** | | | | | | |
| RPT | 0.75 | 1.06 | 0.70 | 1.52 | 1.22 | 1.25 |
| Other Taxes | 0.65 | 0.66 | 0.99 | 2.79 | 2.74 | 1.02 |
| Tax Revenues | 0.73 | | | 1.70 | | |
| Non-Tax Revenues [f] | 1.13 | | | 1.69 | | |
| Local Source Revenues | 1.00 | | | 1.60 | | |
| ***CITIES*** | | | | | | |
| RPT | 1.03 | 1.46 | 0.70 | 3.77 | 1.24 | 3.04 |
| Other Taxes | 1.04 | 1.05 | 0.99 | 4.30 | 4.23 | 1.02 |
| Tax Revenues | 1.03 | | | 4.02 | | |
| Non-Tax Revenues [f] | 1.08 | | | 2.52 | | |
| Local Source Revenues | 1.05 | | | 3.65 | | |
| ***MUNICIPALITIES*** | | | | | | |
| RPT | 0.82 | 1.07 | 0.74 | 1.00 | 0.80 | 1.25 |
| Other Taxes | 0.85 | 0.86 | 0.98 | 1.49 | 1.47 | 1.02 |
| Tax Revenues | 0.84 | | | 1.24 | | |
| Non-Tax Revenues [f] | 0.84 | | | 1.46 | | |
| Local Source Revenues | 0.88 | | | 1.32 | | |

[a] derived using regression approach

[b] derived using simple growth rate

[c] ratio of percentage change in revenue to percentage change in GNP

[d] ratio of percentage change in revenue to percentage change in tax base (assessed value for RPT and non-agriculture GVA for Other Taxes)

[e] ratio of percentage change in tax base to percentage change in GNP

[f] excludes revenues from sales of assets

**Table 10**
**Collection Rate of Current Year and Basic RPT, 1983 - 1997**

| | All LGUs | Provinces | Cities |
|---|---|---|---|
| 1983 | 59.71 | 58.61 | 60.87 |
| 1984 | 54.24 | 50.78 | 58.76 |
| 1985 | 46.85 | 41.98 | 53.20 |
| 1986 | 51.26 | 49.59 | 53.36 |
| 1987 | 52.77 | 49.53 | 56.74 |
| 1988 | 54.30 | 49.39 | 60.67 |
| 1989 | 57.98 | 55.55 | 60.98 |
| 1990 | 57.75 | 53.55 | 63.30 |
| 1991 | 58.92 | 54.09 | 65.06 |
| 1992 | 49.71 | 44.29 | 56.41 |
| 1994 | 60.65 | 53.96 | 66.28 |
| 1996 | 47.55 | 42.70 | 51.13 |
| 1997 | 57.40 | 50.00 | 62.01 |
| Average | | | |
| 1989-1991 | 58.22 | 54.40 | 63.11 |
| 1992-1997 | 53.83 | 47.74 | 58.96 |

**Table 11**
**Regression of Per Capita IRA with Per Capita Personal Income (Provincial Level)**

| dep. var. = ln (IRA/cap) | ln (INC/cap) |
|---|---|
| **1991** | |
| Constant | 6.023 |
| b coefficient | -0.082 |
| t value | -1.330 |
| $R^2$ | 0.018 |
| **1992** | |
| Constant | 7.798 |
| b coefficient | -0.212 |
| t value | -2.481 |
| $R^2$ | 0.060 |
| **1996** | |
| Constant | 10.095 |
| b coefficient | -0.342 |
| t value | -2.460 |
| $R^2$ | 0.083 |

Source: 1991 & 1992 Authors
1996 Alonzo

**Table 12**
**Collection Efficiency and Cost of Collection for Selected Provinces**

| Location | Collection efficiency (%) | cost/collection ratio |
|---|---|---|
| Nueva Vizcaya Province | 45.2 | 1.34 |
| Bambang | 44.4 | 2.54 |
| Boyombong | 50.3 | 2.19 |
| Diadi | 43.4 | 5.86 |
| Dupax del Sur | 41.1 | 8.98 |
| Kasibu | 29.5 | 10.29 |
| Solano | 54.4 | 2.47 |
| Cotobato Province | 37.7 | 1.18 |
| Carmen | 25.0 | 3.78 |
| Midsayap | 41.3 | 1.74 |
| Alamada | 33.3 | 6.10 |
| Antipas | 39.2 | 5.71 |
| Pres. Roxas | 43.4 | 3.25 |
| Capiz Province | 30.2 | .86 |
| Average of 8 municipalities | 27.1 | 1.78 |
| Palawan Province | 38.7 | 1.58 |
| Average of 5 municipalities | 39.2 | 4.03 |

Source: ARD "Reforming the Real Property Tax Protocol: Management Report" 1998

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